

## Q2.

### Gemstone DRUM Distribution License

By signing and submitting this agreement, I grant the University of Maryland a no cost, nonexclusive, right and license to include the scholarly material identified below in the Digital Repository at the University of Maryland ("DRUM"), and to reproduce, translate and distribute the material world-wide in any format and in any medium provided the University does not alter the content of the material. I also agree that the University of Maryland may make and retain more than one copy of the material submitted as it deems necessary for purposes of security, preservation and back up.

I understand that if I wish to publish the material with a third party that requires exclusive publication rights, I may direct the University to remove the material from DRUM. In such an event, I understand that the bibliographic reference to the material will be retained in DRUM, but the material will be removed to a "dark archive" where it is no longer publicly available.

I represent that I am the sole or joint owner of copyright in the material and to the extent that I do not hold copyright in all or part of the material that I have the written authority from the owner of copyright to grant this license to the University of Maryland. If the material is based on work that was sponsored or supported by an agency or entity other than the University of Maryland, I represent that I have respected any right of review or other obligations the sponsor required, including an obligation to acknowledge its support in connection with any publication of the material.

This agreement will be interpreted and governed in accordance with applicable Federal law and the laws of the State of Maryland.

## Q3. Electronic Distribution Information

As a team, you will all need to agree if your team should embargo your thesis.

- ☐ We authorize immediate access to the electronic full text of our work through DRUM.
- ☒ We request that the University of Maryland embargo (restrict) access to the electronic full text of our thesis through DRUM for One (1) Year.
- ☐ We request that the University of Maryland embargo (restrict) access to the electronic full text of our thesis for three (3) Years.
- ☐ We request that the University of Maryland embargo (restrict) access to the electronic full text of our thesis for more than three (3) Years.

## Q4. Gemstone Team

Team CAPTURE ▼

## Q5. Team ART

Title: Exploration of Augmented Reality as an Assistive Device for Students with Dyslexia

Date: Friday, April 17th, 2020 1:30pm-2:15pm

Team Members: Christine Bailey, Jacqueline Deprey, Abdulfatai Fakoya, John Nolan, Ivan Quiles-Rodriguez, Cameron Soderberg, Jeong-Yoon Wu, and Richard Yu

## Q2.

### Gemstone DRUM Distribution License

By signing and submitting this agreement, I grant the University of Maryland a no cost, nonexclusive, right and license to include the scholarly material identified below in the Digital Repository at the University of Maryland ("DRUM"), and to reproduce, translate and distribute the material world-wide in any format and in any medium provided the University does not alter the content of the material. I also agree that the University of Maryland may make and retain more than one copy of the material submitted as it deems necessary for purposes of security, preservation and back up.

I understand that if I wish to publish the material with a third party that requires exclusive publication rights, I may direct the University to remove the material from DRUM. In such an event, I understand that the bibliographic reference to the material will be retained in DRUM, but the material will be removed to a "dark archive" where it is no longer publicly available.

I represent that I am the sole or joint owner of copyright in the material and to the extent that I do not hold copyright in all or part of the material that I have the written authority from the owner of copyright to grant this license to the University of Maryland. If the material is based on work that was sponsored or supported by an agency or entity other than the University of Maryland, I represent that I have respected any right of review or other obligations the sponsor required, including an obligation to acknowledge its support in connection with any publication of the material.

This agreement will be interpreted and governed in accordance with applicable Federal law and the laws of the State of Maryland.

## Q3. Electronic Distribution Information

As a team, you will all need to agree if your team should embargo your thesis.

- ☐ We authorize immediate access to the electronic full text of our work through DRUM.
- ☒ We request that the University of Maryland embargo (restrict) access to the electronic full text of our thesis through DRUM for One (1) Year.
- ☐ We request that the University of Maryland embargo (restrict) access to the electronic full text of our thesis for three (3) Years.
- ☐ We request that the University of Maryland embargo (restrict) access to the electronic full text of our thesis for more than three (3) Years.

## Q4. Gemstone Team

Team CAPTURE ▼

## Q5. Team ART

Title: Exploration of Augmented Reality as an Assistive Device for Students with Dyslexia

Date: Friday, April 17th, 2020 1:30pm-2:15pm

Team Members: Christine Bailey, Jacqueline Deprey, Abdulfatai Fakoya, John Nolan, Ivan Quiles-Rodriguez, Cameron Soderberg, Jeong-Yoon Wu, and Richard Yu

*This question was not displayed to the respondent.*

#### Q8. Team CAPTURE

Title: Graft Polymerization of Nitrogenous Monomers onto Commercial-Grade Fabrics for Atmospheric CO<sub>2</sub> Extraction

Date: Friday, April 17th, 2020 4:00pm-4:45pm

Team Members: Sean Cook, Pablo Dean, Eli Fastow, Patrick Ott, Jonathan Wilson, and Hojin Yoon

#### Q10. Team COR

Title: Investigation of the Pathogenesis and Treatment of Atherosclerosis

Date: Friday, April 17th, 2020 2:45pm-3:30pm

Team Members: Tiffany Cao, Victoria Haass, Tom Kariyil, Samantha Kennedy, Carly Rosenfeld, Aza Shiao, Madina Smagulova, Margo Sybert, Syona Tuladhar, and Justin Wu

*This question was not displayed to the respondent.*

#### Q11. Team E-Justice

Title: Investigating the Intersection of Flood Risk and Environmental Justice in Maryland

Date: Friday, April 17th, 2020 5:15pm-6:00pm

Team Members: Maud Acheampong, Candela Cerpa, Anna T. Cheng, Nicolette M. Corrao, Audrey B. Krimm, Shifali A. Mathews, Haley M. Mullen, Olasunbo O. Salami, Lynne Zhang, and Jaclyn K. Zidar

*This question was not displayed to the respondent.*

#### Q12. Team FEELS

Title: Investigating a Cooperative System of Sensing and Transmitting Haptic Feedback of Soft Tissue for Robotic Surgical Applications

Date: Friday, April 17th, 2020 2:45pm-3:30pm

Team Members: Sophia N. Darwin, Salma M. Ghorab, Priya Kulkarni, Melika Marani, Emma T. Margolis, Priya D. Mittu, Sara M. Pohland, and Rachel N. Wills

*This question was not displayed to the respondent.*

#### Q13. Team LYTIC

Title: Therapeutic Use of Bacteriophage-Antibiotic Formulations for the Treatment of Antibiotic Resistant *Acinetobacter Baumannii* Infections

Date: Friday, April 17th, 2020 5:15pm-6:00pm

Team Members: Kierstin M. Acuna, Mariama S. Barrie, Madeline A. Beaudry, Rory A. Cooley, Colin A.

Fields, Spencer E. Grissom, Zachery L. Keepers, Anna Lavrentieva, Hannah E. Sutton, Timothy R. Walsh, and Natalie B. Wittick

*This question was not displayed to the respondent.*

#### Q15. Team OPTIC

Title: Underwater Optical Wireless Communication Link for Short-Range Data Transmission: A Proof of Concept Study

Date: Friday, April 17th, 2020 1:30pm-2:15pm

Team Members: Arjun Agarwal, Andrew Liu Chen, Thomas Charles Enrique Good, Miles Montgomery Grissom, Daniel Tai Klawson, Jacob Oren Levit, William John Nix, Michael Pique, Edward Ramon Salvatierra, and Nicholas X Zhao

*This question was not displayed to the respondent.*

#### Q16. Team PROCESS

Title: A Data-Driven Approach to NBA Team Building

Date: Friday, April 17th, 2020 1:30pm-2:15pm

Team Members: Hyunsoo Chun, David W. Creegan, Olivia M. Majedi, Daniel B. Smolyak, and Brian O. Valcarcel

*This question was not displayed to the respondent.*

#### Q17. Team SWARM-AI

Title: Platform Development for the Implementation and Testing of New Swarming Strategies

Date: Friday, April 17th, 2020 4:00pm-4:45pm

Team Members: Sara Celidonio, Nathaniel Hoffman, Helen Kent, Paul Motter, Matthew Patsy, Kevin Postlethwait, and James Farquhar

*This question was not displayed to the respondent.*

#### Q18. Team TISSUE

Title: Reducing Deformation in 3D Printed Hydrogel Lattices with Low Temperature 3D Printing

Date: Friday, April 17th, 2020 4:00pm-4:45pm

Team Members: Yahya A. Cheema, Kunal S. Dharmadhikari, Michael B. Hildreth, Neal H. Kewalramani, Catherine Liu, Alexi J. Rodriguez, Danielle Sidelnikov, Pavan S. Vemulakonda, and Linnea M. Warburton

*This question was not displayed to the respondent.*

#### Q19. Team VISOR

Title: Development of a Heads-Up Display for Extravehicular Activities

Date: Friday, April 17th, 2020 2:45pm-3:30pm

Team Members: Katheryn Fox, Radhika Karsalia, Jillian Kunze, Christoph Neisess, Zachary Peters, Roshan Rao, Brady Sack, Matthew Sieh, Ryan Skoletsky, Shelly Szanto, and Matthew Wilkin

*This question was not displayed to the respondent.*

Q44. Printed Name (First and Last)

Hojin Yoon

Q56. Date

4/17/20

Q22. Signature

✕



clear

Location Data

**Location:** ([39.494903564453](#), [-76.667297363281](#))

**Source:** GeolP Estimation



## Q2.

### Gemstone DRUM Distribution License

By signing and submitting this agreement, I grant the University of Maryland a no cost, nonexclusive, right and license to include the scholarly material identified below in the Digital Repository at the University of Maryland ("DRUM"), and to reproduce, translate and distribute the material world-wide in any format and in any medium provided the University does not alter the content of the material. I also agree that the University of Maryland may make and retain more than one copy of the material submitted as it deems necessary for purposes of security, preservation and back up.

I understand that if I wish to publish the material with a third party that requires exclusive publication rights, I may direct the University to remove the material from DRUM. In such an event, I understand that the bibliographic reference to the material will be retained in DRUM, but the material will be removed to a "dark archive" where it is no longer publicly available.

I represent that I am the sole or joint owner of copyright in the material and to the extent that I do not hold copyright in all or part of the material that I have the written authority from the owner of copyright to grant this license to the University of Maryland. If the material is based on work that was sponsored or supported by an agency or entity other than the University of Maryland, I represent that I have respected any right of review or other obligations the sponsor required, including an obligation to acknowledge its support in connection with any publication of the material.

This agreement will be interpreted and governed in accordance with applicable Federal law and the laws of the State of Maryland.

## Q3. Electronic Distribution Information

As a team, you will all need to agree if your team should embargo your thesis.

- ☐ We authorize immediate access to the electronic full text of our work through DRUM.
- ☒ We request that the University of Maryland embargo (restrict) access to the electronic full text of our thesis through DRUM for One (1) Year.
- ☐ We request that the University of Maryland embargo (restrict) access to the electronic full text of our thesis for three (3) Years.
- ☐ We request that the University of Maryland embargo (restrict) access to the electronic full text of our thesis for more than three (3) Years.

## Q4. Gemstone Team

Team CAPTURE ▼

## Q5. Team ART

Title: Exploration of Augmented Reality as an Assistive Device for Students with Dyslexia

Date: Friday, April 17th, 2020 1:30pm-2:15pm

Team Members: Christine Bailey, Jacqueline Deprey, Abdulfatai Fakoya, John Nolan, Ivan Quiles-Rodriguez, Cameron Soderberg, Jeong-Yoon Wu, and Richard Yu

*This question was not displayed to the respondent.*

#### Q8. Team CAPTURE

Title: Graft Polymerization of Nitrogenous Monomers onto Commercial-Grade Fabrics for Atmospheric CO<sub>2</sub> Extraction

Date: Friday, April 17th, 2020 4:00pm-4:45pm

Team Members: Sean Cook, Pablo Dean, Eli Fastow, Patrick Ott, Jonathan Wilson, and Hojin Yoon

#### Q10. Team COR

Title: Investigation of the Pathogenesis and Treatment of Atherosclerosis

Date: Friday, April 17th, 2020 2:45pm-3:30pm

Team Members: Tiffany Cao, Victoria Haass, Tom Kariyil, Samantha Kennedy, Carly Rosenfeld, Aza Shiao, Madina Smagulova, Margo Sybert, Syona Tuladhar, and Justin Wu

*This question was not displayed to the respondent.*

#### Q11. Team E-Justice

Title: Investigating the Intersection of Flood Risk and Environmental Justice in Maryland

Date: Friday, April 17th, 2020 5:15pm-6:00pm

Team Members: Maud Acheampong, Candela Cerpa, Anna T. Cheng, Nicolette M. Corrao, Audrey B. Krimm, Shifali A. Mathews, Haley M. Mullen, Olasunbo O. Salami, Lynne Zhang, and Jaclyn K. Zidar

*This question was not displayed to the respondent.*

#### Q12. Team FEELS

Title: Investigating a Cooperative System of Sensing and Transmitting Haptic Feedback of Soft Tissue for Robotic Surgical Applications

Date: Friday, April 17th, 2020 2:45pm-3:30pm

Team Members: Sophia N. Darwin, Salma M. Ghorab, Priya Kulkarni, Melika Marani, Emma T. Margolis, Priya D. Mittu, Sara M. Pohland, and Rachel N. Wills

*This question was not displayed to the respondent.*

#### Q13. Team LYTIC

Title: Therapeutic Use of Bacteriophage-Antibiotic Formulations for the Treatment of Antibiotic Resistant *Acinetobacter Baumannii* Infections

Date: Friday, April 17th, 2020 5:15pm-6:00pm

Team Members: Kierstin M. Acuna, Mariama S. Barrie, Madeline A. Beaudry, Rory A. Cooley, Colin A.



Fields, Spencer E. Grissom, Zachery L. Keepers, Anna Lavrentieva, Hannah E. Sutton, Timothy R. Walsh, and Natalie B. Wittick

*This question was not displayed to the respondent.*

#### Q15. Team OPTIC

Title: Underwater Optical Wireless Communication Link for Short-Range Data Transmission: A Proof of Concept Study

Date: Friday, April 17th, 2020 1:30pm-2:15pm

Team Members: Arjun Agarwal, Andrew Liu Chen, Thomas Charles Enrique Good, Miles Montgomery Grissom, Daniel Tai Klawson, Jacob Oren Levit, William John Nix, Michael Pique, Edward Ramon Salvatierra, and Nicholas X Zhao

*This question was not displayed to the respondent.*

#### Q16. Team PROCESS

Title: A Data-Driven Approach to NBA Team Building

Date: Friday, April 17th, 2020 1:30pm-2:15pm

Team Members: Hyunsoo Chun, David W. Creegan, Olivia M. Majedi, Daniel B. Smolyak, and Brian O. Valcarcel

*This question was not displayed to the respondent.*

#### Q17. Team SWARM-AI

Title: Platform Development for the Implementation and Testing of New Swarming Strategies

Date: Friday, April 17th, 2020 4:00pm-4:45pm

Team Members: Sara Celidonio, Nathaniel Hoffman, Helen Kent, Paul Motter, Matthew Patsy, Kevin Postlethwait, and James Farquhar

*This question was not displayed to the respondent.*

#### Q18. Team TISSUE

Title: Reducing Deformation in 3D Printed Hydrogel Lattices with Low Temperature 3D Printing

Date: Friday, April 17th, 2020 4:00pm-4:45pm

Team Members: Yahya A. Cheema, Kunal S. Dharmadhikari, Michael B. Hildreth, Neal H. Kewalramani, Catherine Liu, Alexi J. Rodriguez, Danielle Sidelnikov, Pavan S. Vemulakonda, and Linnea M. Warburton

*This question was not displayed to the respondent.*

#### Q19. Team VISOR

# Title: Development of a Heads-Up Display for Extravehicular Activities

Date: Friday, April 17th, 2020 2:45pm-3:30pm

Team Members: Katheryn Fox, Radhika Karsalia, Jillian Kunze, Christoph Neisess, Zachary Peters, Roshan Rao, Brady Sack, Matthew Sieh, Ryan Skoletsky, Shelly Szanto, and Matthew Wilkin

*This question was not displayed to the respondent.*

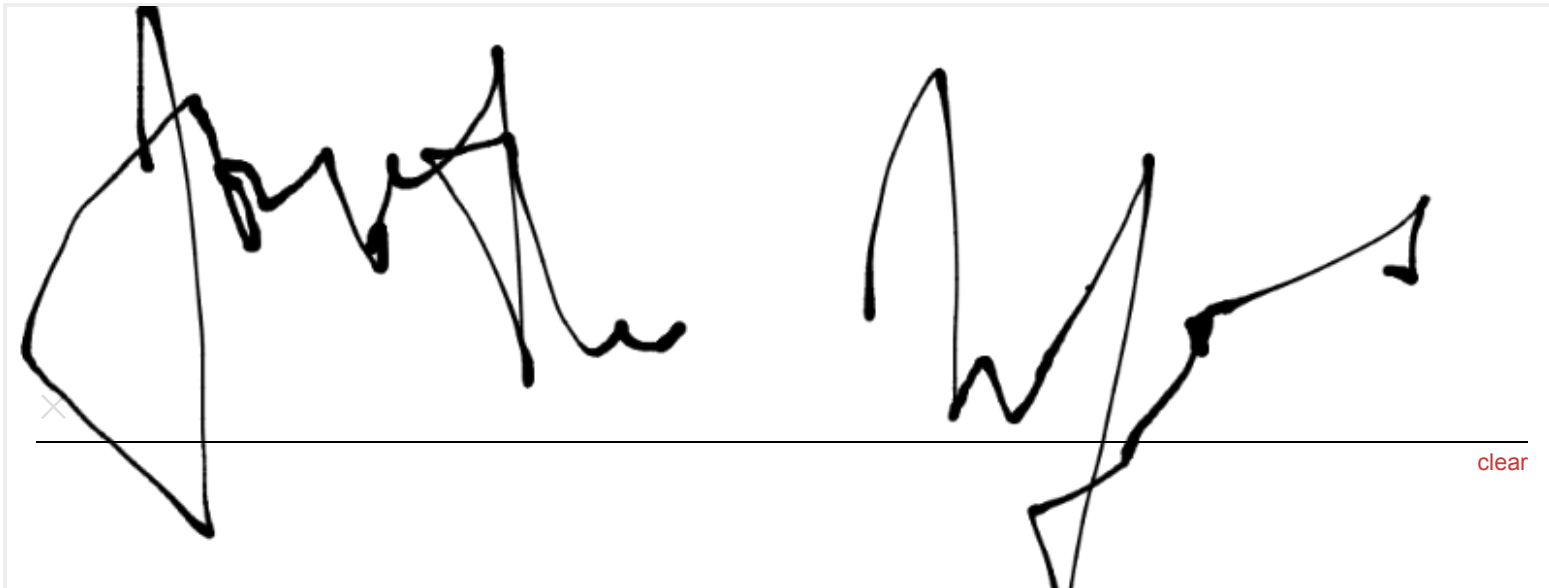
Q44. Printed Name (First and Last)

Jonathan Wilson

Q56. Date

4/22/2020

Q22. Signature

A handwritten signature in black ink on a white background. The signature is written in a cursive, stylized font. It consists of two main parts: a first name 'Jonathan' and a last name 'Wilson'. The first name is more complex with many loops and flourishes. The last name is simpler, with a few loops. A horizontal line is drawn across the bottom of the signature area. In the bottom left corner of the signature area, there is a small 'x' icon. In the bottom right corner, there is a red 'clear' button.

Location Data

**Location:** ([38.94889831543](#), [-76.935203552246](#))

**Source:** GeolIP Estimation



## Q2.

### Gemstone DRUM Distribution License

By signing and submitting this agreement, I grant the University of Maryland a no cost, nonexclusive, right and license to include the scholarly material identified below in the Digital Repository at the University of Maryland ("DRUM"), and to reproduce, translate and distribute the material world-wide in any format and in any medium provided the University does not alter the content of the material. I also agree that the University of Maryland may make and retain more than one copy of the material submitted as it deems necessary for purposes of security, preservation and back up.

I understand that if I wish to publish the material with a third party that requires exclusive publication rights, I may direct the University to remove the material from DRUM. In such an event, I understand that the bibliographic reference to the material will be retained in DRUM, but the material will be removed to a "dark archive" where it is no longer publicly available.

I represent that I am the sole or joint owner of copyright in the material and to the extent that I do not hold copyright in all or part of the material that I have the written authority from the owner of copyright to grant this license to the University of Maryland. If the material is based on work that was sponsored or supported by an agency or entity other than the University of Maryland, I represent that I have respected any right of review or other obligations the sponsor required, including an obligation to acknowledge its support in connection with any publication of the material.

This agreement will be interpreted and governed in accordance with applicable Federal law and the laws of the State of Maryland.

## Q3. Electronic Distribution Information

As a team, you will all need to agree if your team should embargo your thesis.

- ☐ We authorize immediate access to the electronic full text of our work through DRUM.
- ☒ We request that the University of Maryland embargo (restrict) access to the electronic full text of our thesis through DRUM for One (1) Year.
- ☐ We request that the University of Maryland embargo (restrict) access to the electronic full text of our thesis for three (3) Years.
- ☐ We request that the University of Maryland embargo (restrict) access to the electronic full text of our thesis for more than three (3) Years.

## Q4. Gemstone Team

Team CAPTURE ▼

## Q5. Team ART

Title: Exploration of Augmented Reality as an Assistive Device for Students with Dyslexia

Date: Friday, April 17th, 2020 1:30pm-2:15pm

Team Members: Christine Bailey, Jacqueline Deprey, Abdulfatai Fakoya, John Nolan, Ivan Quiles-Rodriguez, Cameron Soderberg, Jeong-Yoon Wu, and Richard Yu

*This question was not displayed to the respondent.*

#### Q8. Team CAPTURE

Title: Graft Polymerization of Nitrogenous Monomers onto Commercial-Grade Fabrics for Atmospheric CO<sub>2</sub> Extraction

Date: Friday, April 17th, 2020 4:00pm-4:45pm

Team Members: Sean Cook, Pablo Dean, Eli Fastow, Patrick Ott, Jonathan Wilson, and Hojin Yoon

#### Q10. Team COR

Title: Investigation of the Pathogenesis and Treatment of Atherosclerosis

Date: Friday, April 17th, 2020 2:45pm-3:30pm

Team Members: Tiffany Cao, Victoria Haass, Tom Kariyil, Samantha Kennedy, Carly Rosenfeld, Aza Shiao, Madina Smagulova, Margo Sybert, Syona Tuladhar, and Justin Wu

*This question was not displayed to the respondent.*

#### Q11. Team E-Justice

Title: Investigating the Intersection of Flood Risk and Environmental Justice in Maryland

Date: Friday, April 17th, 2020 5:15pm-6:00pm

Team Members: Maud Acheampong, Candela Cerpa, Anna T. Cheng, Nicolette M. Corrao, Audrey B. Krimm, Shifali A. Mathews, Haley M. Mullen, Olasunbo O. Salami, Lynne Zhang, and Jaclyn K. Zidar

*This question was not displayed to the respondent.*

#### Q12. Team FEELS

Title: Investigating a Cooperative System of Sensing and Transmitting Haptic Feedback of Soft Tissue for Robotic Surgical Applications

Date: Friday, April 17th, 2020 2:45pm-3:30pm

Team Members: Sophia N. Darwin, Salma M. Ghorab, Priya Kulkarni, Melika Marani, Emma T. Margolis, Priya D. Mittu, Sara M. Pohland, and Rachel N. Wills

*This question was not displayed to the respondent.*

#### Q13. Team LYTIC

Title: Therapeutic Use of Bacteriophage-Antibiotic Formulations for the Treatment of Antibiotic Resistant *Acinetobacter Baumannii* Infections

Date: Friday, April 17th, 2020 5:15pm-6:00pm

Team Members: Kierstin M. Acuna, Mariama S. Barrie, Madeline A. Beaudry, Rory A. Cooley, Colin A.

Fields, Spencer E. Grissom, Zachery L. Keepers, Anna Lavrentieva, Hannah E. Sutton, Timothy R. Walsh, and Natalie B. Wittick

*This question was not displayed to the respondent.*

#### Q15. Team OPTIC

Title: Underwater Optical Wireless Communication Link for Short-Range Data Transmission: A Proof of Concept Study

Date: Friday, April 17th, 2020 1:30pm-2:15pm

Team Members: Arjun Agarwal, Andrew Liu Chen, Thomas Charles Enrique Good, Miles Montgomery Grissom, Daniel Tai Klawson, Jacob Oren Levit, William John Nix, Michael Pique, Edward Ramon Salvatierra, and Nicholas X Zhao

*This question was not displayed to the respondent.*

#### Q16. Team PROCESS

Title: A Data-Driven Approach to NBA Team Building

Date: Friday, April 17th, 2020 1:30pm-2:15pm

Team Members: Hyunsoo Chun, David W. Creegan, Olivia M. Majedi, Daniel B. Smolyak, and Brian O. Valcarcel

*This question was not displayed to the respondent.*

#### Q17. Team SWARM-AI

Title: Platform Development for the Implementation and Testing of New Swarming Strategies

Date: Friday, April 17th, 2020 4:00pm-4:45pm

Team Members: Sara Celidonio, Nathaniel Hoffman, Helen Kent, Paul Motter, Matthew Patsy, Kevin Postlethwait, and James Farquhar

*This question was not displayed to the respondent.*

#### Q18. Team TISSUE

Title: Reducing Deformation in 3D Printed Hydrogel Lattices with Low Temperature 3D Printing

Date: Friday, April 17th, 2020 4:00pm-4:45pm

Team Members: Yahya A. Cheema, Kunal S. Dharmadhikari, Michael B. Hildreth, Neal H. Kewalramani, Catherine Liu, Alexi J. Rodriguez, Danielle Sidelnikov, Pavan S. Vemulakonda, and Linnea M. Warburton

*This question was not displayed to the respondent.*

#### Q19. Team VISOR

Title: Development of a Heads-Up Display for Extravehicular Activities

Date: Friday, April 17th, 2020 2:45pm-3:30pm

Team Members: Katheryn Fox, Radhika Karsalia, Jillian Kunze, Christoph Neisess, Zachary Peters, Roshan Rao, Brady Sack, Matthew Sieh, Ryan Skoletsky, Shelly Szanto, and Matthew Wilkin

*This question was not displayed to the respondent.*

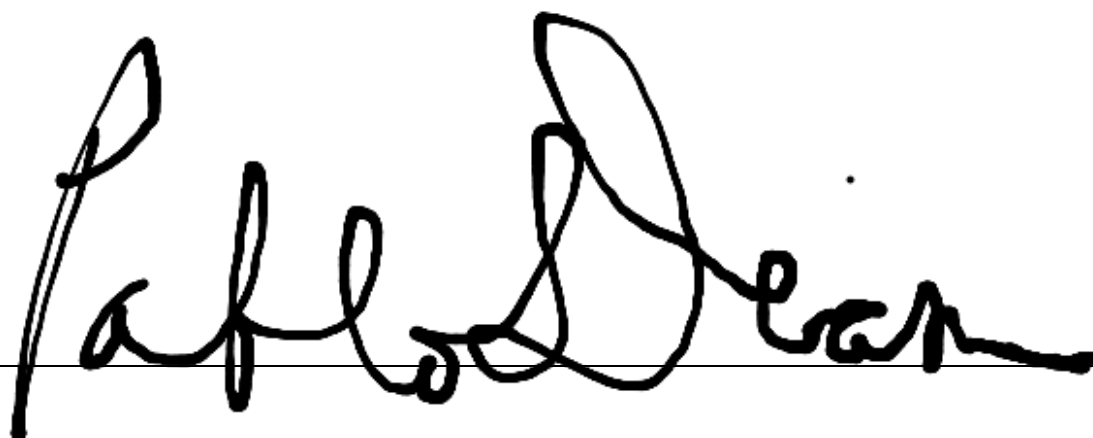
Q44. Printed Name (First and Last)

Pablo Dean

Q56. Date

4/17/2020

Q22. Signature

A handwritten signature in black ink that reads "Pablo Dean". The signature is written in a cursive style with a horizontal line underneath the text. To the left of the signature is a small grey 'X' icon, and to the right is a red "clear" button.

Location Data

**Location:** ([39.082794189453](#), [-77.16739654541](#))

**Source:** GeolP Estimation





## Q2.

### Gemstone DRUM Distribution License

By signing and submitting this agreement, I grant the University of Maryland a no cost, nonexclusive, right and license to include the scholarly material identified below in the Digital Repository at the University of Maryland ("DRUM"), and to reproduce, translate and distribute the material world-wide in any format and in any medium provided the University does not alter the content of the material. I also agree that the University of Maryland may make and retain more than one copy of the material submitted as it deems necessary for purposes of security, preservation and back up.

I understand that if I wish to publish the material with a third party that requires exclusive publication rights, I may direct the University to remove the material from DRUM. In such an event, I understand that the bibliographic reference to the material will be retained in DRUM, but the material will be removed to a "dark archive" where it is no longer publicly available.

I represent that I am the sole or joint owner of copyright in the material and to the extent that I do not hold copyright in all or part of the material that I have the written authority from the owner of copyright to grant this license to the University of Maryland. If the material is based on work that was sponsored or supported by an agency or entity other than the University of Maryland, I represent that I have respected any right of review or other obligations the sponsor required, including an obligation to acknowledge its support in connection with any publication of the material.

This agreement will be interpreted and governed in accordance with applicable Federal law and the laws of the State of Maryland.

## Q3. Electronic Distribution Information

As a team, you will all need to agree if your team should embargo your thesis.

- ☐ We authorize immediate access to the electronic full text of our work through DRUM.
- ☒ We request that the University of Maryland embargo (restrict) access to the electronic full text of our thesis through DRUM for One (1) Year.
- ☐ We request that the University of Maryland embargo (restrict) access to the electronic full text of our thesis for three (3) Years.
- ☐ We request that the University of Maryland embargo (restrict) access to the electronic full text of our thesis for more than three (3) Years.

## Q4. Gemstone Team

Team CAPTURE ▼

## Q5. Team ART

Title: Exploration of Augmented Reality as an Assistive Device for Students with Dyslexia

Date: Friday, April 17th, 2020 1:30pm-2:15pm

Team Members: Christine Bailey, Jacqueline Deprey, Abdulfatai Fakoya, John Nolan, Ivan Quiles-Rodriguez, Cameron Soderberg, Jeong-Yoon Wu, and Richard Yu

*This question was not displayed to the respondent.*

#### Q8. Team CAPTURE

Title: Graft Polymerization of Nitrogenous Monomers onto Commercial-Grade Fabrics for Atmospheric CO<sub>2</sub> Extraction

Date: Friday, April 17th, 2020 4:00pm-4:45pm

Team Members: Sean Cook, Pablo Dean, Eli Fastow, Patrick Ott, Jonathan Wilson, and Hojin Yoon

#### Q10. Team COR

Title: Investigation of the Pathogenesis and Treatment of Atherosclerosis

Date: Friday, April 17th, 2020 2:45pm-3:30pm

Team Members: Tiffany Cao, Victoria Haass, Tom Kariyil, Samantha Kennedy, Carly Rosenfeld, Aza Shiao, Madina Smagulova, Margo Sybert, Syona Tuladhar, and Justin Wu

*This question was not displayed to the respondent.*

#### Q11. Team E-Justice

Title: Investigating the Intersection of Flood Risk and Environmental Justice in Maryland

Date: Friday, April 17th, 2020 5:15pm-6:00pm

Team Members: Maud Acheampong, Candela Cerpa, Anna T. Cheng, Nicolette M. Corrao, Audrey B. Krimm, Shifali A. Mathews, Haley M. Mullen, Olasunbo O. Salami, Lynne Zhang, and Jaclyn K. Zidar

*This question was not displayed to the respondent.*

#### Q12. Team FEELS

Title: Investigating a Cooperative System of Sensing and Transmitting Haptic Feedback of Soft Tissue for Robotic Surgical Applications

Date: Friday, April 17th, 2020 2:45pm-3:30pm

Team Members: Sophia N. Darwin, Salma M. Ghorab, Priya Kulkarni, Melika Marani, Emma T. Margolis, Priya D. Mittu, Sara M. Pohland, and Rachel N. Wills

*This question was not displayed to the respondent.*

#### Q13. Team LYTIC

Title: Therapeutic Use of Bacteriophage-Antibiotic Formulations for the Treatment of Antibiotic Resistant *Acinetobacter Baumannii* Infections

Date: Friday, April 17th, 2020 5:15pm-6:00pm

Team Members: Kierstin M. Acuna, Mariama S. Barrie, Madeline A. Beaudry, Rory A. Cooley, Colin A.

Fields, Spencer E. Grissom, Zachery L. Keepers, Anna Lavrentieva, Hannah E. Sutton, Timothy R. Walsh, and Natalie B. Wittick

*This question was not displayed to the respondent.*

#### Q15. Team OPTIC

Title: Underwater Optical Wireless Communication Link for Short-Range Data Transmission: A Proof of Concept Study

Date: Friday, April 17th, 2020 1:30pm-2:15pm

Team Members: Arjun Agarwal, Andrew Liu Chen, Thomas Charles Enrique Good, Miles Montgomery Grissom, Daniel Tai Klawson, Jacob Oren Levit, William John Nix, Michael Pique, Edward Ramon Salvatierra, and Nicholas X Zhao

*This question was not displayed to the respondent.*

#### Q16. Team PROCESS

Title: A Data-Driven Approach to NBA Team Building

Date: Friday, April 17th, 2020 1:30pm-2:15pm

Team Members: Hyunsoo Chun, David W. Creegan, Olivia M. Majedi, Daniel B. Smolyak, and Brian O. Valcarcel

*This question was not displayed to the respondent.*

#### Q17. Team SWARM-AI

Title: Platform Development for the Implementation and Testing of New Swarming Strategies

Date: Friday, April 17th, 2020 4:00pm-4:45pm

Team Members: Sara Celidonio, Nathaniel Hoffman, Helen Kent, Paul Motter, Matthew Patsy, Kevin Postlethwait, and James Farquhar

*This question was not displayed to the respondent.*

#### Q18. Team TISSUE

Title: Reducing Deformation in 3D Printed Hydrogel Lattices with Low Temperature 3D Printing

Date: Friday, April 17th, 2020 4:00pm-4:45pm

Team Members: Yahya A. Cheema, Kunal S. Dharmadhikari, Michael B. Hildreth, Neal H. Kewalramani, Catherine Liu, Alexi J. Rodriguez, Danielle Sidelnikov, Pavan S. Vemulakonda, and Linnea M. Warburton

*This question was not displayed to the respondent.*

#### Q19. Team VISOR

Title: Development of a Heads-Up Display for Extravehicular Activities

Date: Friday, April 17th, 2020 2:45pm-3:30pm

Team Members: Katheryn Fox, Radhika Karsalia, Jillian Kunze, Christoph Neisess, Zachary Peters, Roshan Rao, Brady Sack, Matthew Sieh, Ryan Skoletsky, Shelly Szanto, and Matthew Wilkin

*This question was not displayed to the respondent.*

Q44. Printed Name (First and Last)

Patrick Ott

Q56. Date

April 17th, 2020

Q22. Signature

Patrick Ott

clear

Location Data

**Location:** ([38.961807250977,-77.119300842285](#))

**Source:** GeolIP Estimation



## Q2.

### Gemstone DRUM Distribution License

By signing and submitting this agreement, I grant the University of Maryland a no cost, nonexclusive, right and license to include the scholarly material identified below in the Digital Repository at the University of Maryland ("DRUM"), and to reproduce, translate and distribute the material world-wide in any format and in any medium provided the University does not alter the content of the material. I also agree that the University of Maryland may make and retain more than one copy of the material submitted as it deems necessary for purposes of security, preservation and back up.

I understand that if I wish to publish the material with a third party that requires exclusive publication rights, I may direct the University to remove the material from DRUM. In such an event, I understand that the bibliographic reference to the material will be retained in DRUM, but the material will be removed to a "dark archive" where it is no longer publicly available.

I represent that I am the sole or joint owner of copyright in the material and to the extent that I do not hold copyright in all or part of the material that I have the written authority from the owner of copyright to grant this license to the University of Maryland. If the material is based on work that was sponsored or supported by an agency or entity other than the University of Maryland, I represent that I have respected any right of review or other obligations the sponsor required, including an obligation to acknowledge its support in connection with any publication of the material.

This agreement will be interpreted and governed in accordance with applicable Federal law and the laws of the State of Maryland.

## Q3. Electronic Distribution Information

As a team, you will all need to agree if your team should embargo your thesis.

- ☐ We authorize immediate access to the electronic full text of our work through DRUM.
- ☒ We request that the University of Maryland embargo (restrict) access to the electronic full text of our thesis through DRUM for One (1) Year.
- ☐ We request that the University of Maryland embargo (restrict) access to the electronic full text of our thesis for three (3) Years.
- ☐ We request that the University of Maryland embargo (restrict) access to the electronic full text of our thesis for more than three (3) Years.

## Q4. Gemstone Team

Team CAPTURE ▼

## Q5. Team ART

Title: Exploration of Augmented Reality as an Assistive Device for Students with Dyslexia

Date: Friday, April 17th, 2020 1:30pm-2:15pm

Team Members: Christine Bailey, Jacqueline Deprey, Abdulfatai Fakoya, John Nolan, Ivan Quiles-Rodriguez, Cameron Soderberg, Jeong-Yoon Wu, and Richard Yu

*This question was not displayed to the respondent.*

#### Q8. Team CAPTURE

Title: Graft Polymerization of Nitrogenous Monomers onto Commercial-Grade Fabrics for Atmospheric CO<sub>2</sub> Extraction

Date: Friday, April 17th, 2020 4:00pm-4:45pm

Team Members: Sean Cook, Pablo Dean, Eli Fastow, Patrick Ott, Jonathan Wilson, and Hojin Yoon

#### Q10. Team COR

Title: Investigation of the Pathogenesis and Treatment of Atherosclerosis

Date: Friday, April 17th, 2020 2:45pm-3:30pm

Team Members: Tiffany Cao, Victoria Haass, Tom Kariyil, Samantha Kennedy, Carly Rosenfeld, Aza Shiao, Madina Smagulova, Margo Sybert, Syona Tuladhar, and Justin Wu

*This question was not displayed to the respondent.*

#### Q11. Team E-Justice

Title: Investigating the Intersection of Flood Risk and Environmental Justice in Maryland

Date: Friday, April 17th, 2020 5:15pm-6:00pm

Team Members: Maud Acheampong, Candela Cerpa, Anna T. Cheng, Nicolette M. Corrao, Audrey B. Krimm, Shifali A. Mathews, Haley M. Mullen, Olasunbo O. Salami, Lynne Zhang, and Jaclyn K. Zidar

*This question was not displayed to the respondent.*

#### Q12. Team FEELS

Title: Investigating a Cooperative System of Sensing and Transmitting Haptic Feedback of Soft Tissue for Robotic Surgical Applications

Date: Friday, April 17th, 2020 2:45pm-3:30pm

Team Members: Sophia N. Darwin, Salma M. Ghorab, Priya Kulkarni, Melika Marani, Emma T. Margolis, Priya D. Mittu, Sara M. Pohland, and Rachel N. Wills

*This question was not displayed to the respondent.*

#### Q13. Team LYTIC

Title: Therapeutic Use of Bacteriophage-Antibiotic Formulations for the Treatment of Antibiotic Resistant *Acinetobacter Baumannii* Infections

Date: Friday, April 17th, 2020 5:15pm-6:00pm

Team Members: Kierstin M. Acuna, Mariama S. Barrie, Madeline A. Beaudry, Rory A. Cooley, Colin A.

Fields, Spencer E. Grissom, Zachery L. Keepers, Anna Lavrentieva, Hannah E. Sutton, Timothy R. Walsh, and Natalie B. Wittick

*This question was not displayed to the respondent.*

#### Q15. Team OPTIC

Title: Underwater Optical Wireless Communication Link for Short-Range Data Transmission: A Proof of Concept Study

Date: Friday, April 17th, 2020 1:30pm-2:15pm

Team Members: Arjun Agarwal, Andrew Liu Chen, Thomas Charles Enrique Good, Miles Montgomery Grissom, Daniel Tai Klawson, Jacob Oren Levit, William John Nix, Michael Pique, Edward Ramon Salvatierra, and Nicholas X Zhao

*This question was not displayed to the respondent.*

#### Q16. Team PROCESS

Title: A Data-Driven Approach to NBA Team Building

Date: Friday, April 17th, 2020 1:30pm-2:15pm

Team Members: Hyunsoo Chun, David W. Creegan, Olivia M. Majedi, Daniel B. Smolyak, and Brian O. Valcarcel

*This question was not displayed to the respondent.*

#### Q17. Team SWARM-AI

Title: Platform Development for the Implementation and Testing of New Swarming Strategies

Date: Friday, April 17th, 2020 4:00pm-4:45pm

Team Members: Sara Celidonio, Nathaniel Hoffman, Helen Kent, Paul Motter, Matthew Patsy, Kevin Postlethwait, and James Farquhar

*This question was not displayed to the respondent.*

#### Q18. Team TISSUE

Title: Reducing Deformation in 3D Printed Hydrogel Lattices with Low Temperature 3D Printing

Date: Friday, April 17th, 2020 4:00pm-4:45pm

Team Members: Yahya A. Cheema, Kunal S. Dharmadhikari, Michael B. Hildreth, Neal H. Kewalramani, Catherine Liu, Alexi J. Rodriguez, Danielle Sidelnikov, Pavan S. Vemulakonda, and Linnea M. Warburton

*This question was not displayed to the respondent.*

#### Q19. Team VISOR



Title: Development of a Heads-Up Display for Extravehicular Activities

Date: Friday, April 17th, 2020 2:45pm-3:30pm

Team Members: Katheryn Fox, Radhika Karsalia, Jillian Kunze, Christoph Neisess, Zachary Peters, Roshan Rao, Brady Sack, Matthew Sieh, Ryan Skoletsky, Shelly Szanto, and Matthew Wilkin

*This question was not displayed to the respondent.*

Q44. Printed Name (First and Last)

Sean Cook

Q56. Date

4/18/2020

Q22. Signature

Sean Cook

clear

Location Data

**Location:** ([38.989303588867](#), [-77.158599853516](#))

**Source:** GeolP Estimation



*This question was not displayed to the respondent.*

#### Q8. Team CAPTURE

Title: Graft Polymerization of Nitrogenous Monomers onto Commercial-Grade Fabrics for Atmospheric CO<sub>2</sub> Extraction

Date: Friday, April 17th, 2020 4:00pm-4:45pm

Team Members: Sean Cook, Pablo Dean, Eli Fastow, Patrick Ott, Jonathan Wilson, and Hojin Yoon

#### Q10. Team COR

Title: Investigation of the Pathogenesis and Treatment of Atherosclerosis

Date: Friday, April 17th, 2020 2:45pm-3:30pm

Team Members: Tiffany Cao, Victoria Haass, Tom Kariyil, Samantha Kennedy, Carly Rosenfeld, Aza Shiao, Madina Smagulova, Margo Sybert, Syona Tuladhar, and Justin Wu

*This question was not displayed to the respondent.*

#### Q11. Team E-Justice

Title: Investigating the Intersection of Flood Risk and Environmental Justice in Maryland

Date: Friday, April 17th, 2020 5:15pm-6:00pm

Team Members: Maud Acheampong, Candela Cerpa, Anna T. Cheng, Nicolette M. Corrao, Audrey B. Krimm, Shifali A. Mathews, Haley M. Mullen, Olasunbo O. Salami, Lynne Zhang, and Jaclyn K. Zidar

*This question was not displayed to the respondent.*

#### Q12. Team FEELS

Title: Investigating a Cooperative System of Sensing and Transmitting Haptic Feedback of Soft Tissue for Robotic Surgical Applications

Date: Friday, April 17th, 2020 2:45pm-3:30pm

Team Members: Sophia N. Darwin, Salma M. Ghorab, Priya Kulkarni, Melika Marani, Emma T. Margolis, Priya D. Mittu, Sara M. Pohland, and Rachel N. Wills

*This question was not displayed to the respondent.*

#### Q13. Team LYTIC

Title: Therapeutic Use of Bacteriophage-Antibiotic Formulations for the Treatment of Antibiotic Resistant *Acinetobacter Baumannii* Infections

Date: Friday, April 17th, 2020 5:15pm-6:00pm

Team Members: Kierstin M. Acuna, Mariama S. Barrie, Madeline A. Beaudry, Rory A. Cooley, Colin A.

Fields, Spencer E. Grissom, Zachery L. Keepers, Anna Lavrentieva, Hannah E. Sutton, Timothy R. Walsh, and Natalie B. Wittick

*This question was not displayed to the respondent.*

#### Q15. Team OPTIC

Title: Underwater Optical Wireless Communication Link for Short-Range Data Transmission: A Proof of Concept Study

Date: Friday, April 17th, 2020 1:30pm-2:15pm

Team Members: Arjun Agarwal, Andrew Liu Chen, Thomas Charles Enrique Good, Miles Montgomery Grissom, Daniel Tai Klawson, Jacob Oren Levit, William John Nix, Michael Pique, Edward Ramon Salvatierra, and Nicholas X Zhao

*This question was not displayed to the respondent.*

#### Q16. Team PROCESS

Title: A Data-Driven Approach to NBA Team Building

Date: Friday, April 17th, 2020 1:30pm-2:15pm

Team Members: Hyunsoo Chun, David W. Creegan, Olivia M. Majedi, Daniel B. Smolyak, and Brian O. Valcarcel

*This question was not displayed to the respondent.*

#### Q17. Team SWARM-AI

Title: Platform Development for the Implementation and Testing of New Swarming Strategies

Date: Friday, April 17th, 2020 4:00pm-4:45pm

Team Members: Sara Celidonio, Nathaniel Hoffman, Helen Kent, Paul Motter, Matthew Patsy, Kevin Postlethwait, and James Farquhar

*This question was not displayed to the respondent.*

#### Q18. Team TISSUE

Title: Reducing Deformation in 3D Printed Hydrogel Lattices with Low Temperature 3D Printing

Date: Friday, April 17th, 2020 4:00pm-4:45pm

Team Members: Yahya A. Cheema, Kunal S. Dharmadhikari, Michael B. Hildreth, Neal H. Kewalramani, Catherine Liu, Alexi J. Rodriguez, Danielle Sidelnikov, Pavan S. Vemulakonda, and Linnea M. Warburton

*This question was not displayed to the respondent.*

#### Q19. Team VISOR

Title: Development of a Heads-Up Display for Extravehicular Activities

Date: Friday, April 17th, 2020 2:45pm-3:30pm

Team Members: Katheryn Fox, Radhika Karsalia, Jillian Kunze, Christoph Neisess, Zachary Peters, Roshan Rao, Brady Sack, Matthew Sieh, Ryan Skoletsky, Shelly Szanto, and Matthew Wilkin

*This question was not displayed to the respondent.*

Q44. Printed Name (First and Last)

Eli Fastow

Q56. Date

04/27/2020

Q22. Signature

✕



clear

Location Data

**Location:** ([38.996505737305](#), [-76.93399810791](#))

**Source:** GeolP Estimation

