
Interested in the design and optimization of intelligent decision support systems and persuasive technologies to augment human proficiencies.

EDUCATION

The Pennsylvania State University

Ph.D. Industrial and Manufacturing Engineering,
Human Factors & Ergonomics (advisor Conrad S. Tucker)

State College, PA
August 2015-May 2019

Rochester Institute of Technology

M.S. in Industrial and Systems Engineering,
concentration in Applied Statistics

Rochester, NY
August 2011-December 2013

Pontificia Universidad Católica Madre y Maestra

B.S. Industrial Engineering
Honors: *Summa Cum Laude*

Santo Domingo, D.R.
August 2007-January 2011

PEER REVIEWED JOURNAL PAPERS

1. **Lopez, C. E.**, Cunningham, J., Ashour, O., and Tucker, C. S, “Deep Reinforcement Learning for Procedural Content Generation of 3D Virtual Environments,” in *ASME Journal of Computing and Information Science in Engineering* (2020) (doi: [10.1115/1.4046293](https://doi.org/10.1115/1.4046293))
2. Zhao, V., **Lopez, C. E.**, and Tucker, C. S, “Evaluating the impact of idea dissemination methods on information loss,” in *ASME Journal of Computing and Information Science in Engineering* (2019), 19, 3 (doi: [10.1115/1.4042553](https://doi.org/10.1115/1.4042553)) ([PDF](#)).
3. **Lopez, C. E.**, and Tucker, C. S, “The effects of player type on performance: A gamification case study,” *Computers in Human Behavior* (2019), 91, 333-345 (doi: [10.1016/j.chb.2018.10.005](https://doi.org/10.1016/j.chb.2018.10.005)) ([PDF](#))
4. **Lopez, C. E.**, and Tucker, C. S, “Towards personalized adaptive gamification: A machine learning model for predicting performance,” *IEEE Transaction on Games* (2018) (doi: [10.1109/TG.2018.2883661](https://doi.org/10.1109/TG.2018.2883661)) ([PDF](#)).
5. **Lopez, C. E.**, Miller, S. R., and Tucker, C. S, “Exploring biases between human and machine generated designs,” in *ASME Journal of Mechanical Design* (2018) 141,2 (doi: [10.1115/1.4041857](https://doi.org/10.1115/1.4041857)) ([PDF](#)).
6. **Lopez, C. E.**, Tucker, S., Salameh, T., and Tucker, C., “An unsupervised machine learning method for discovering patient cluster based on genetic signature,” *Journal of Biomedical Informatics* (2018), 85, 30-39 (doi: [10.1016/j.jbi.2018.07.004](https://doi.org/10.1016/j.jbi.2018.07.004)) ([PDF](#)) ([Penn State News](#)).
7. **Lopez, C. E.**, and Tucker, C. S, “A quantitative method for evaluating the complexity of implementing and performing game features in physically-interactive gamified applications,” *Computers in Human Behavior* (2017), 71, 42-58 (doi: [10.1016/j.chb.2017.01.036](https://doi.org/10.1016/j.chb.2017.01.036)) ([PDF](#)) ([Penn State News](#)).

PEER REVIEWED CONFERENCE PAPERS

1. Thomas Stranick, and **Lopez, C. E.**, , “Virtual Reality Exergames: Promoting physical health among industry workers”, in *ASME Int. Design Engineering Technical Conf. & Computer and Informatics Engineering. Conf.*, Virtual Conference, August 17-20, 2021.
2. Takudzwa Mujuru, and **Lopez, C. E.**, , “Creating Virtual Reality teaching modules for low-cost headsets”, in *ASME Int. Design Engineering Technical Conf. & Computer and Informatics Engineering. Conf.*, Virtual Conference, August 17-20, 2021.
3. **Lopez, C. E.**, and Tucker, C. S, “Adaptive Gamification and its impact on performance,” in *International Conference on Human-Computer Interaction*, Virtual Conference, July 24-29, 2021

4. **Lopez, C. E.**, Cunningham, J., Ashour, O., Lynch, P., and Tucker, C., “The CLICK Approach and its Impact on Learning Introductory Probability Concepts in an Industrial Engineering Course,” *Proc. of ASEE Annual Conference & Exposition*, Montreal, Canada, June 21-24, 2020.
5. Cunningham, J., **Lopez, C. E.**, Ashour, O., Lynch, P., and Tucker, C., “Multi-Context Generation in Virtual Reality Environments Using Deep Reinforcement Learning” in *ASME Int. Design Engineering Technical Conf. & Computer and Informatics Engineering. Conf.*, St. Louis, MO, August 16-19, 2020.
6. **Lopez, C. E.**, Zhao, V., Tucker, C., “Semantic Network Differences Across Engineering Design Communication Methods,” in *ASME Int. Design Engineering Technical Conf. & Computer and Informatics Engineering. Conf.*, Anaheim, CA, August 18-21, 2019.
7. **Lopez, C. E.**, Ashour, O., Tucker, C., “Reinforcement Learning Content Generation for Virtual Reality Applications,” in *ASME Int. Design Engineering Technical Conf. & Computer and Informatics Engineering. Conf.*, Anaheim, CA, August 18-21, 2019 (**ASME CIE Virtual Environments & Systems Best Paper Award**).
8. **Lopez, C. E.**, Ashour, O., and Tucker, C., “An introduction to the CLICK approach: Leveraging Virtual Reality to Integrate the Industrial Engineering Curriculum,” *Proc. of ASEE Annual Conference & Exposition*, Tampa, FL, June 16-19, 2019 (**New IE Educator Outstanding Paper Award**)([PDF](#)).
9. **Lopez, C. E.**, and Tucker, C., “Implementing gamification in engineering bridge programs: A case study exploring the use of the Kahoot! application,” *Proc. of ASEE Zone 1 Conference*, Niagara Falls, NY, April 11-13, 2019 ([PDF](#))([Post](#)).
10. **Lopez, C. E.**, Miller, S. R., and Tucker, C. S., “Human validation of computer vs. human generated design sketches,” in *ASME Int. Design Engineering Technical Conf. & Computer and Informatics Engineering. Conf.*, Quebec City, Canada, August 26-29, 2018 ([PDF](#)) ([Post](#)).
11. **Lopez, C. E.**, and Tucker, C. S., “Towards personalized performance feedback: Mining the dynamics of facial keypoint data in engineering lab environments,” in *Proc. of ASEE Mid-Atlantic Spring Conf.*, Washington, D.C., April 6-7, 2018 (**Best Paper Award**)([PDF](#)) ([Post](#)).
12. **Lopez, C. E.**, and Tucker, C. S., “Towards real-time ergonomics feedback and educational content with the use of co-robots,” in *Proc. of ASEE Mid-Atlantic Fall Conf.*, Berks, PA, October 6-7, 2017 ([PDF](#)) ([Post](#)).
13. **Lopez, C. E.**, and Tucker, C. S., “From mining affective state to mining facial keypoint data: The quest towards personalized feedback,” in *ASME Int. Design Engineering Technical Conf. & Computer and Informatics Engineering. Conf.*, Cleveland, OH, August 6-9, 2017 ([PDF](#)) ([Post](#)).
14. **Lopez, C. E.**, and Tucker, C. S., “When to provide feedback? Exploring human-co-robot interactions in engineering environments,” in *Proc. of ASEE Annual Conference & Exposition*, Columbus, OH, June 23-28, 2017. ([PDF](#)) ([Post](#)).
15. **Lopez, C. E.**, Zheng, X., and Miller, S. R., “Linking creativity measurements to product market favorability: A data-mining approach,” in *ASME Int. Design Engineering Technical Conf. & Computer and Informatics Engineering. Conf.*, Cleveland, OH, August 6-9, 2017. ([PDF](#)) ([Post](#)).
16. **Lopez, C. E.**, and Nembhard, D. A., “Cooperative workforce planning heuristic with workers learning/forgetting and demand constraints,” in *IIE Annual Conf. Proc.*, Pittsburgh, PA, May 20-23, 2017. ([PDF](#)) ([Post](#)).

**BOOK
CHAPTERS &
OTHERS**

1. **Lopez, C. E.**, Gallemore, C., “An Augmented Multilingual Twitter dataset for studying the COVID-19 infodemic” in *Research Square DOI:10.21203/rs.3.rs-95721/v1* (2020) ([see Link](#)).
2. **Lopez, C. E.**, Vasu, M., Gallemore, C., “Understanding the perception of COVID-19 policies by mining a multilanguage Twitter dataset” in *arXiv preprint arXiv:2003.10359* (2020) ([see Link](#)).
3. **Lopez, C. E.**, and Tucker, C. S., “Mining facial keypoint data: The quest towards personalized engineering applications,” in *Emotional Engineering*, Seventh Edition, London, UK: Springer, (2019), p.92-112 ([see Link](#)).

**INVITED
TALKS**

1. **Lopez, C. E.**, “Workshop of Artificial Intelligence and it uses to fight COVID-19” *at the Universidad Autónoma de Santo Domingo (UASD)*, Remotely, November 19th, 2020
2. Ashour, O., **Lopez, C. E.**, Negahban, A, “Extended Reality and Simulation in STEM Education” *at in Institute of Industrial and Systems Engineers (IISE) Annual Conf. Proc.*, Remotely, November 3rd, 2020
3. **Lopez, C. E.**, “Machine Learning Research and Application Areas” *at the Dominican Republic Artificial Intelligence Summit*, Remotely, October 29th, 2020
4. **Lopez, C. E.**, “Environment: New Technologies and their Application in the Knowledge and Management of Biological Diversity” *at Symposium of Research and Scientific Solutions in Times of COVID-19 Crisis and Beyond*, Remotely, June 23rd, 2020.
5. **Lopez, C. E.**, “Talk: Machine Learning algorithms in Practice” *at the Ministry of Higher Education, Science and Technology of Dominican Republic*, Remotely, May 22nd, 2020.
6. **Lopez, C. E.**, “Workshop of Artificial Intelligence and Machine Learning algorithms” *at the Universidad Autónoma de Santo Domingo (UASD)*, Santo Domingo, D.R., June 12th, 2019. ([Post](#))
7. **Lopez, C. E.**, “Artificial Intelligence and Machine Learning: The 4th Industrial Revolution and its impact on the economy and the labor market” *Keynote speaker at the XV International Scientific Research Congress*, Santo Domingo, D.R., June 5-7, 2019. ([Post](#))
8. **Lopez, C. E.**, “The challenges for teaching Machine Learning and AI in this interconnect world” *at the Universidad Autónoma de Santo Domingo (UASD)*, Santo Domingo, D.R., March 11th, 2019. ([Post](#))
9. **Lopez, C. E.**, “The importance of research and innovation in the age of AI” *at the Universidad Autónoma de Santo Domingo (UASD)*, Santo Domingo, D.R., March 10th, 2019. ([Post](#))
10. **Lopez, C. E.**, “Imagining the future of engineering design,” *in EDSGN-100: Introduction to Engineering Design*, State College, PA, August 23, 2018.
11. **Lopez, C. E.**, “Machine learning applications: Towards personalized medicine and biomechanical modeling,” *Keynote speaker at the SHPE National Conf.*, Kansas City, MO, November 1-5, 2017. ([Post](#))

**OTHERS
TALKS &
POSTERS**

1. **Lopez, C. E.**, “Co-Robots and Machine Learning for Personalized Feedback” *at the Robot Learning Workshop*, Institute of Data Intelligence Systems and Computation, Lehigh Valley University, PA, October 14-15, 2019.
2. **Lopez, C. E.**, “Implementing gamification in engineering bridge programs: A case study exploring students’ player type” *at the College of Engineer Research Symposium*, State College, PA, April 4, 2019. (**First place**)([Post](#))
3. **Lopez, C. E.**, “Towards personalized gamification to promote physical activity ” *at the College of Engineer Research Symposium*, State College, PA, April 4, 2019. ([Post](#))
4. **Lopez, C. E.**, “Exploring biases between human and machine generated designs” *at the College of Engineer Research Symposium*, State College, PA, April 4, 2019. ([Post](#))
5. **Lopez, C. E.**, “Exploring biases between human and machine generated designs” *at the Penn State Institute for CyberScience Research Symposium*, State College, PA, April 1, 2019.
6. **Lopez, C. E.**, “Exploring biases between human and machine generated designs” *at the ASME Int. Mechanical Eng. Congress & Exposition, NSF Poster Competition*, Pittsburgh, PA, November 9-15, 2018. ([Post](#))
7. **Lopez, C. E.**, “Deep learning generative model in the product development process: Exploring designers’ bias,” *at the SHPE National Conf., Engineering Science Symposium*, Cleveland, OH, November 7-11, 2018. ([Post](#))
8. **Lopez, C. E.**, “Towards personalized gamification to promote physical activity,” *at the ACM Richard Tapia Celebration of Diversity in Computing Conf.*, Orlando, FL, September 19-22, 2018. ([Post](#))

9. **Lopez, C. E.**, “Integrating co-robots and machine learning in engineering lab environments to provide personalized feedback,” in *ASME Computer and Informatics Engineering. Conf. Graduate Research Poster session*, Quebec City, Canada, August 26-29, 2018. ([Post](#))
10. **Lopez, C. E.**, “Human validation of computer vs. human generated design sketches,” in *ASME Int. Design Engineering Technical Conf. & Computer and Informatics Engineering. Conf.*, Quebec City, Canada, August 26-29, 2018. ([Post](#))
11. **Lopez, C. E.**, and Tucker, C. S., “Real-time occlusion between real and digital objects in augmented reality,” in *ASME Int. Design Engineering Technical Conf. & Computer and Informatics Engineering. Conf.*, Quebec City, Canada, August 26-29, 2018. ([Post](#))
12. **Lopez, C. E.**, “Towards personalized gamification to promote physical activity,” at the *Penn State Hershey Children’s Hospital Pediatric Research Day*, Hershey, PA, May 24, 2018. ([Post](#))
13. **Lopez, C. E.**, “Towards personalized performance feedback by mining the dynamics of facial keypoint data,” at the *Harold and Inge Marcus Department of Industrial and Manufacturing Engineering Industry Open House*, State College, PA, April 25, 2018. ([Post](#))
14. **Lopez, C. E.**, “An unsupervised machine learning method for discovering patient clusters based on genetic signatures,” at the *Center for Health Organization Transformation (CHOT) spring LAB Meeting*, Houston, TX, April 12-13, 2018. ([Post](#))
15. **Lopez, C. E.**, “The quest towards personalized gamification: Exploring the effects of individuals player type on performance,” at the *College of Engineer Research Symposium*, State College, PA, April 10, 2018. (**Second place**)([Post](#))
16. **Lopez, C. E.**, “Towards personalized performance feedback: Mining the dynamics of facial keypoint data in engineering lab environments,” at the *College of Engineer Research Symposium*, State College, PA, April 10, 2018. ([Post](#))
17. **Lopez, C. E.**, “Exploring human-co-robot interactions: Real-time feedback or not?,” in *Proc. of ASEE Mid-Atlantic Spring Conf.*, Washington, D.C., April 6-7, 2018. ([Post](#))
18. **Lopez, C. E.**, “Towards personalized gamification to promote physical activity,” at the *Penn State Institute for CyberScience Research Symposium*, State College, PA, March 30, 2018. ([Post](#))
19. **Lopez, C. E.**, “Towards personalized performance feedback by mining the dynamics of facial keypoint data,” at the *Penn State Graduate Exhibition*, State College, PA, March 25, 2018. ([Post](#))
20. **Lopez, C. E.**, “Towards personalized performance feedback by mining the dynamics of facial keypoint data,” at the *Harold and Inge Marcus Department of Industrial and Manufacturing Engineering Research Poster Competition*, State College, PA, February 9, 2018. (**First place**) ([Post](#))
21. **Lopez, C. E.**, “Supervised machine learning: The caret package tutorial” & “Unsupervised machine learning: The hclust, pvclust, cluster, mclust, and more,” at *We R: Penn State R User’s Group from QuantDev*, State College, PA, November 8th & 15th, 2017. ([Post](#))
22. **Lopez, C. E.**, and Tucker, C. S., “Real-Time observation, inference and intervention of co-robot system towards individually customized performance feedback based on students’ affective state,” at the *NSF-NRI PI Meeting*, Arlington, VA, November 9-10, 2017. ([Post](#))
23. **Lopez, C. E.**, “Mining the dynamics of facial keypoint data for personalized feedback,” at the *HENAAC-Great Minds in STEM Conf.*, Pasadena, CA, October 18-22, 2017. (**Second place**) ([Post](#))
24. **Lopez, C. E.**, “Towards personalized performance feedback by mining the dynamics of facial keypoint data,” at the *ACM Richard Tapia Celebration of Diversity in Computing Conf.*, Atlanta, GA, September 20-23, 2017. ([Post](#))

25. **Lopez, C. E.**, “From mining affective state to mining facial keypoint data: the quest towards personalized feedback,” at *College of Engineering IndustryXChange*, State College, PA, May 24, 2017. ([Post](#))
26. **Lopez, C. E.**, “Linking creativity measurements to product market favorability: A data-mining approach,” at the *College of Engineer Research Symposium*, State College, PA, April 4, 2017. (**Second place**) ([Post](#))

Students Work

1. Thomas Stranick, “Leveraging Virtual Reality and Exergames to promote physical activity”, in *International Conference on Human-Computer Interaction*, Virtual Conference, July 24-29, 2021.
2. Liam Stewart, “Developing Spatial Visualization Skills with Virtual Reality and Hand-tracking”, in *International Conference on Human-Computer Interaction*, Virtual Conference, July 24-29, 2021.
3. Mujuru. T., “Virtual Reality in Education”, *Fall 2020 Student Poster Session, Lafayette College*, Easton, PA, September 18th, 2020. (see [poster](#))
4. Carroll, D., “Using Virtual Reality to Improve Spatial Visualization Skills”, *Fall 2020 Student Poster Session, Lafayette College*, Easton, PA, September 18th, 2020. (see [poster](#))
5. Stranick, T., “Utilizing Virtual Reality and Gamification to Promote Physical Activity”, *Fall 2020 Student Poster Session, Lafayette College*, Easton, PA, September 18th, 2020. (see [poster](#))
6. Vasu, M., “Vehicle Tracking Using Machine Learning for Smart Cities”, *Fall 2020 Student Poster Session, Lafayette College*, Easton, PA, September 18th, 2020. (see [poster](#))
7. Pogorelov, I., “Robotic Arm Control Using Reinforcement Learning” , *Fall 2020 Student Poster Session, Lafayette College*, Easton, PA, September 18th, 2020. (see [poster](#))
8. Vasu, M., and Prof. Gallemore, C., “Understanding the perception of COVID-19 policies by mining a multilanguage Twitter dataset” in arXiv preprint arXiv:2003.10359, 2020(see [link](#))
9. Cecile, K., K., “Social Media Mining for Understanding Users' Sentiment and Informing Stakeholders” at the Lehigh Valley University David and Lorraine Freed Undergraduate Research Symposium, Bethlehem, PA, April 17, 2020 (see [link](#)).
10. Cecile, K., K., and Prof. Gallemore, C., “Using Data Mining and Social media to inform stakeholders” at the LVAIC Global Student Conference Advances Inclusion and Cultural Awareness, Easton, PA, February 27, 2020 (see [link](#)).

GRANTS

1. **Teaching with Technology**, Virtual Reality for Teaching Engineering Designs and Programming, Lafayette College, 2019. Award: US\$5,000.
2. **National Fund for Innovation and Scientific and Technological Development**, Machine Learning method for real-time accident detection, Ministry of Higher Education, Science and Technology of the Dominican Republic, 2019. Award: RD\$7,777,100 (US\$150,000)

HONORS & AWARDS

- Inducted to the Dominican Republic National Researcher Career**, Ministry of Higher Education, Science and Technology, December 11th, 2019.
- Best Paper Award**, American Society of Mechanical Engineering 2019 Computer & Information in Engineering (CIE) Conference, Virtual Environments & Systems, 2019.
- Outstanding Paper Award**, American Society for Engineering Education Conference & Exposition 2019, New IE Educator: Dr. Omar Ashour NSF CLICK project PI.
- First place** at the College of Engineer Research Symposium 2019, Industrial Systems and Design section.
- Outstanding Graduate Student Awards**, College of Engineering Multicultural Engineering Program, the Pennsylvania State University, Spring 2019.
- Best Paper Award**, American Society for Engineering Education (ASEE) Mid-Atlantic Conf., 2018.
- First place** at the Harold and Inge Marcus Dept. of Industrial and Manufacturing Engineering Research Poster Competition 2018.

NSF Travel Grant (#CMMI-1838333) for the American Society of Mechanical Engineering (ASME) International Mechanical Engineering Congress & Exposition (IMCE) 2018.

Travel Award from the American Society of Mechanical Engineering (ASME) for the 2018 IDETC/CIE Conference, CIE Graduate Research Poster session.

Tapia Scholarship, Association for Computing Machinery (ACM) Richard Tapia Celebration of Diversity in Computing Conf. 2018

Second place at the College of Engineer Research Symposium 2018, Industrial Systems and Design section.

Travel grant through the Center for Engineering Outreach and Inclusion for the ASEE Mid-Atlantic Conf. 2018.

NSF ASSIST Travel Grant (#EEC-1548197) for the Society of Hispanic Professional Engineers (SHPE) National Conf. 2017, Early-Faculty Development Symposium

Keynote Speaker at the SHPE National Conf. 2017, Biomedical and Bioengineering Science Symposium section.

Second place at the Hispanic Engineer National Achievement Award Corporation (HENAAC) Great Minds in STEM Conf. Research Poster Graduate Competition 2017, Engineering/Technology section.

NSF ASSIST Travel Grant (#EEC-1548322) for HENAAC Great Mind in STEM Conf. 2017, Early-Faculty Development Symposium.

Tapia NSF Scholarship (#CNS-1733570), Association for Computing Machinery (ACM) Richard Tapia Celebration of Diversity in Computing Conf. 2017.

Second place at the College of Engineer Research Symposium 2017, Industrial Systems and Design section.

ACADEMIC EXPERIENCE

Department of Computer Science, Lafayette College

Easton, PA

Assistant Professor

June 2019-Present

Computer Science affiliated with Mechanical Engineering

- CS-104, Introduction to Game Programming
- CS-414, Introduction to Machine Learning
- DS-201, Principles of Data Science
- ES-101, Introduction to Engineering: Design and Data Mining

Department of Industrial and Manufacturing Engineering, Penn State

State College, PA

Graduate Research Assistant, Projects:

May 2016-May 2019

- Leveraging Virtual Reality to Connect Learning and Integrate Course Knowledge in Industrial Engineering Curriculum (NSF-DUE Grant#1834465).
- Observation, Inference, and Intervention: An Adaptive Co-robot System that Provides Individually Customized Performance Feedback Based on Students' Affective States (NSF-NRI Grant #1527148).
- Injuries Aren't Part of the Game: Developing an injury prevention game to engage parents ([see Website](#)).
- Gamification and Self-Monitoring of patients for enhanced Wellness Outcomes.
- Integration of Genomic Data for Precision Health Decision Support.
- Design of a Project Management course for Engineers with a flipped classroom format.

Teaching Assistant:

January 2016-April 2016

- IE-312, Production Design and Manufacturing Processes

Center for Engineering Outreach and Inclusion, Penn State

State College, PA

Jump Start Program Instructor:

May 2018-June 2018

- PHYS-211, General Physics Mechanics.

Department of Computer Sciences and Engineering, Penn State

State College, PA

Teaching Assistant:

August 2015-January 2016

- CMPSC-203, Introduction to Databases and Spreadsheets.

Morgan Academic Support Center for Student-Athletes, Penn State

State College, PA

Study Hall Monitor and Tutor

August 2015-July 2016

Department of Industrial and Systems Engineering, RIT

Rochester, NY

Graduate Assistant, Toyota Production Systems Laboratory.

May 2013-December 2013

Graduate Teaching Assistant:

August 2013-December 2013

- ISEE-561/661 (Undergrad/Grad), Linear Regression Analysis.
- ISEE-560, Applied Statistical Quality Control.
- ISEE-421, Design and Analysis of Production Systems.

Graduate Research Assistant, Project:

January 2013-August 2013

- The State of the Material Handling Education, sponsored by the College Industry Council on Material Handling Education (CICMHE).

**INDUSTRY
EXPERIENCE***Century Mold*

Rochester, NY

Industrial/ Manufacturing Engineer

January 2014-May 2015

- Led and participated in process improvement projects throughout the organization to reduce scrap and improve efficiency by implementing Lean and Six Sigma tools.
- Helped the quality department with the Production Part Approval Process (PPAP) and TS16949 audits.
- Worked with manufacturing to improve all ergonomic conditions.
- Supported Program Manager in the launch of new programs.

Information & Technology Services Department, RIT

Rochester, NY

Industrial and Systems Engineer Lab Assistant

August 2012-January 2014

- Assisted students and RIT staff to solve any issue regarding Industrial and Systems Engineer software.

Monroe BOCES #1

Rochester, NY

Project Coordinator, Pictometry 360 (Summer Co-op)

June 2012-August 2012

- Coordinated with team members on the project's timelines, schedule, and processes implementation.
- Organized and created protocols for updating and maintaining the security database in the district.
- Worked with the IT department to create training and reference documents for internal district use.

Project Management Office, Finance Ministry

Santo Domingo, D.R.

Planning and Development Analyst

September 2010-August 2011

- Documented, designed, and redesigned processes to improve efficiency.
- Led a variety of continuous improvement projects throughout the Ministry to reduce waste and variability from internal processes.
- Supported in the logistics of projects and activities related to the institutional strategic plan, such as training, audits, and surveys.

*Lopsa Ltd.***Operations Coordinator**

Santo Domingo, D.R

May 2007-September 2010

Service Crew Member

June 2006-May 2007

- Coordinated the work plan, material distribution, and the overall logistics of the jobs with engineers and operators.
- Supervised and coordinated the preventive maintenance of equipment and tools.
- Coordinated and executed continuous improvement projects in several key business areas, such as the Packaging and Sales departments.

**ACADEMIC
SERVICE**

- NeurIPS 2020 LatinXAI Research Reviewer and Session Chair
- ASME Computer Information in Engineering Conference, Virtual Environment and Systems Co-Chair, 2020-present.
- ASME Computer Information in Engineering Conference, Virtual Environment and Systems committee secretary 2019-2020
- ACM Richard Tapia Celebration of Diversity in Computing Conference, Chair for the Academic Panels & Workshops program committee, 2021-present
- ACM Richard Tapia Celebration of Diversity in Computing Conference, Co-Chair for the Academic Panels & Workshops program committee, 2020.
- Virtual and Augmented Reality Community of Practice at Lafayette College, facilitator ([website](#)).
- Reviewer for the ASME Journal of Mechanical Design, since 2019.
- Reviewer for the Institute of Electrical and Electronics Engineers (IEEE) Computer Society MultiMedia journal, since 2019.
- Reviewer for the Elsevier Computer & Education Journal, since 2019.
- Reviewer for the Elsevier Journal of Biomedical Informatics, since 2019.
- Reviewer for the Cambridge University Design Science journal, since 2019.
- Reviewer for the Tools and Methods of Competitive Engineering Symposium, 2020
- Reviewer for the American Society of Mechanical Engineers (ASME) International Design Engineering Technical Conference & Computer Information in Engineering Conference (IDETC-CIE), 2019 & 2020.

AFFILIATIONS

- Association for Computing Machinery (ACM)
- American Society of Mechanical Engineers (ASME)
- American Society for Engineering Education (ASEE)
- Society of Hispanic Professional Engineers (SHPE)
- Institute of Industrial and Systems Engineers (IISE)
- National Industrial Engineering Honor Society (Alpha Pi Mu)
- Institute for Operations Research and the Management Sciences (Informs)
- Institute of Electrical and Electronics Engineers (IEEE)

**LEADERSHIP
AND
VOLUNTEER
SERVICES***The Center for Engineering Outreach and Inclusion, Penn State*

State College, PA

CEOI Board Member

March 2020 - Present

Office of Intercultural Development, Lafayette College

Easton, PA

International Friendship Program Partner

August 2019- July 2020

Center for Engineering Outreach and Inclusion, Penn State

State College, PA

Multicultural Engineering Student Volunteer, events:

October 2017-May 2019

- Society of Hispanic Professional Engineers (SHPE) National Convention, 2018 ([Post](#))
- Graduate School STEM Fall Open House, 2018 ([Post](#)).
- Multi-Campus Research Experience for Undergraduates 2018, Graduate Panel ([Post](#)).
- Emerging Research National (ERN) Conference in STEM, 2018 ([Post](#)).
- Society of Hispanic Professional Engineers (SHPE) National Conference, 2017 ([Post](#)).
- Hispanic Engineer National Achievement Award Corporation (HENAAC) Great Minds in STEM Conference, 2017 ([Post](#)).

Global Programs, Penn State

State College, PA

Student Orientation Leader

May 2018-August 2018

Center for Leadership & Civic Engagement, RIT

Rochester, NY

Student Advisory Board Member

September 2013-December 2013

Office of Graduate Education, RIT

Rochester, NY

Graduate Student Advisory Committee Member

April 2013-December 2013

Graduate Research and Creativity Symposium Committee Member

April 2013-July 2013

International Student Services Department, RIT

Rochester, NY

Peer Advisor Leader

April 2013-August 2013

Student Government, RIT

Rochester, NY

Graduate Senator

May 2013-September 2013

**CERTIFICATES
& TRAINING**
The Pennsylvania State University

State College, PA

Graduate School Teaching Certificate

January 2018

Johns Hopkins University

Coursera

Data Science Specialization

January 2019

Rochester Institute of Technology

Rochester, NY

Advanced Certificate in Project Management

August 2012-December 2013

Certificate in Organizational Leadership

Certificate in Global Leadership

Six Sigma Black Belt Training

Certificate in Six Sigma Leadership

The LeaderShape Institute

Atlanta, GA

Leadership Certificate

July 2013