

# Stephanie Chin

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## Summary:

- Graduating senior interested in full-time job related to sustainable urban infrastructure.
- Diverse skills in engineering design, data analysis, software development, and communication.
- Significant research and leadership experience.

## EDUCATION

**Massachusetts Institute of Technology (MIT), Cambridge, MA**

Jun 2019

B.S. in Civil & Envir. Engr. (Cum GPA: 4.7/5.0)

- **Engineering:** Envir. Tech. in Buildings, Computational Structural Design & Optimization, Transportation Systems Modeling, Uncertainty in Engr., Principles of Energy & Water Sustainability, Water Resource Systems. Civil & Envir. Engr. Design Lab.
- **Computing:** Intro. to Algorithms, Intro. to Network Modeling, Intro. to Machine Learning, Comp. Programming for Sci & Engr..
- **Mechanics:** Structural Mech., Soil Mech., Fluid Mech., Dynamics, Solid Mech..
- **Management:** Making Public Policy, Project Eval. & Management, Innovative Project Delivery.

## EXPERIENCE

**Researcher (SuperUROP program), MIT, Cambridge, MA**

Sep 2018– present

- Developing a convolutional neural network for labeling traffic camera image data

**Research Intern (MISTI program), Tsinghua University, Beijing, China**

Jun – Aug 2018

- Applied Systems Dynamics to case study of the impact of green construction policy on building stock.

**Researcher (REU program), Texas A&M University-Kingsville, Kingsville, TX**

Jun – Aug 2017

- Experimented on how window design impacts building daylighting and thermal performance.
- Submitted 40-page report to National Science Foundation.
- Presented at ASHRAE Annual Conference 2018. Received undergrad research award.

**Research Intern (UROP program), MIT, Cambridge, MA**

Sep 2015 – Jun 2017

- Researched performance of cement-volcanic ash mixes via compression tests, MIP, SEM, and XRD.
- Co-authored 3 published journal papers.
- Presented results at MIT, Kuwait, and ACS National Conference 2017. Received undergrad research awards.

**Intern, Skanska USA, Boston, MA**

Jun – Aug 2016

- Compiled and analyzed data about safety on construction jobsites.
- Wrote 40-page project report to identify and to recommend potential safety improvements.
- Conducted background research in sensor networks for construction jobsites.

**Software Intern, Worcester Polytechnic Institute, Worcester, MA**

May – Aug 2015

- Developed UI for a plugin to export .SDF from Solidworks to Gazebo robotics simulation software.

## PUBLICATIONS

“Particle size effect of volcanic ash towards developing engineered portland cements.” Journal of Materials in Civil Engineering (DOI: 10.1061/(ASCE)MT.1943-5533.0002348)

“Impact of Embodied Energy on materials/buildings with partial replacement of ordinary Portland Cement (OPC) by natural Pozzolan volcanic Ash.” Journal of Cleaner Production (DOI: 10.1016/j.jclepro.2017.12.234)

“Hydration kinetics and morphology of cement pastes with pozzolan volcanic ash studied via synchrotron-based techniques.” Journal of Materials Science (DOI: 10.1007/s10853-017-1659-4)

## CAMPUS LEADERSHIP

**UA Sustainability Committee, MIT**

Sep 2015 – present

- Managed \$9K budget, solicited sponsorships, organized large events, and worked with administrators/students as Treasurer, Secretary, Project Lead (DEC subcommittee), and Exec Member.

**East Campus (EC) dormitory, MIT**

Nov 2015 – present

- Managed \$80K/year budget across 20+ subcommittees/project accounts, improved composting/recycling, and worked with administration/students as Treasurer, Exec Member, Hall Chair, and Dorm Eco-Rep.
- Organized the dorm’s REX Orientation program, including several wooden structure construction projects (3-story fort and 70-foot archbridge) and more than 20 small events

**Civil & Envir. Engr. Student Association (CEESA), MIT**

Jan – Dec 2017

- Worked with administration/student leaders as Treasurer and Exec Member.

## COMPUTER SKILLS

**Analytics:** MATLAB, R, IgorPro, Mathematica, MS Excel, MS Access

**CAD:** OnShape, Solidworks, SketchUp, Rhinoceros/Grasshopper, AutoCAD

**Programming:** C/C#, Java, JavaScript, Python, Git, Emacs, Linux Terminal

**Presentation:** LaTeX, GIMP, Microsoft Office

## **INTERESTS**

**Research:** IoT, Infrastructure/Utilities, Construction Innovation, Modeling/Data Visualization

**Hobbies:** Sustainability, music (trumpet & piano), podcasts, swing dance, scuba (SDI certified)