LILLIAN LAU

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OBJECTIVE

A driven civil and environmental engineering undergraduate with both corporate and scientific research experience interested in the application of new technologies in the engineering

EDUCATION

University of Illinois at Urbana-Champaign, IL

- Bachelors of Science in Civil and Environmental Engineering Class of 2020 (Honors)
- CGPA: 3.86 (Spring 2017)

WORK & RESEARCH EXPERIENCE

Undergraduate Research Assistant in the Department of Civil and Environmental Engineering, University of Illinois, IL (September 2017 – Present)

- Assisting in the study of concrete rheology for the 3D-printing of concrete in Professor David A. Lange's group.
- Performing data compilation and analysis of concrete rheology using rotational rheometry.
- Assisting in testing the effects of vibration time on the compressive strength of concrete for the development of 3D printer nozzles.

Civil Engineering Intern at Tenaga Nasional Berhad Power Company, Malaysia (July 2017)

- Proposed pile cap and lock-and-key beam joint designs for the construction of the first prefabricated 33kV/11kV power distribution station in northern Malaysia.
- Estimated costs in Bills of Quantities for five difference scenarios of roadworks involving electrical cables in three days.
- Assisted in the conducting of power distribution station site visits.

Program for Undergraduate Research (PURE), University of Illinois, IL (February 2017 – May 2017)

- Studied the application of X-Ray Computed Tomography in characterizing the porosity of foam cement.
- Learned to apply AMIRA, Origin and ScanIP software in two weeks to analyze, tabulate, and simulate the 3D pore structure of foam cement.
- Assisted in developing methods for calculating the percentage error of cement density after data loss due to software discrepancies.
- Successfully concluded the most accurate method (visual method) of determining foam concrete density.

LEADERSHIP

Society for Women Engineers (August 2016 – Present)

- Community Service Committee
  - Served as the Environmental Chair of the committee for two semesters.
  - Co-organized the installation of solar panels at the Randolph St Community Garden in Champaign, IL.
- Project Paplet
  - Secured a grant of $500 from the University Student Sustainability Council for the continuity of the program.
  - Organized and led the collection of 37kg of recycled paper to make into notebooks.
  - Donated 100 notebooks to the University Child Development Laboratory.

American Concrete Institution (August 2016 – Present)

- Represented the University of Illinois for the National ACI Convention in Fall 2016 and Spring 2017.
- Worked in a team to develop workable mortar (Fall 2016) and build a concrete beam (Spring 2017) for the ACI Student Competitions using limited resources.
- Developing a low-carbon, high strength concrete mix for the Fall 2017 Eco Concrete ACI Student Competition.

SKILLS & INTERESTS

Technical Proficiency: Certified in Building Performance Analysis, proficient in Autodesk Revit, Google SketchUp, Microsoft Office Suite, Java, Matlab, HTML, and CSS.
Language Proficiency: English and Malay (native), Japanese and Mandarin (elementary)
Interests: Classical literature, Kendo (the Japanese Way of the Sword), and cooking

AWARDS & ACCOLADES

- Dean's List for the Department of Engineering (Fall 2016 and Spring 2017)
- James Scholar Honors Program (2016)
- Recipient of the Tenaga Nasional Foundation Scholarship (2015)