

Clara Nelson

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EDUCATION

Master of Science in Civil Engineering at Carnegie Mellon University Expected May 2019

Focus Area: Advanced Infrastructure Systems

Current Coursework: Building Performance Modeling, Data Analytics, Mechanical and Electrical Systems for Buildings, Structural Analysis

Bachelor of Science in Civil Engineering at Carnegie Mellon University May 2018

GPA: 3.92/4.0

Philosophy Minor

Honors: Tau Beta Pi, Phi Kappa Phi, Chi Epsilon, CIT Dean's List for 7 semesters

Relevant Coursework: Building Controls and Diagnostics, Data Acquisition, Data Management, Python

Prototyping for Infrastructure, Building Information Modeling (BIM), Structural Design, AutoCAD

PROFESSIONAL EXPERIENCE

Carnegie Mellon Civil Engineering Department, Pittsburgh, PA June – July 2018

CEE Graduate Research Assistant

- Created custom materials for finite element analysis of structure's vibrations in ANSYS
- Measured floor structural vibrations and performed basic signal analysis using MATLAB
- Designed and built 20'x7' wood structure using LVLs and shop tools

TranSystems, Pittsburgh, PA May – August 2017

Summer Intern

- Pitched to manager and created new Microsoft Access database
- Evaluated roads for bicycle and pedestrian improvement potential
- Assisted in structural bridge inspection to compile into inspection report

Crown Castle Inc, Canonsburg, PA May – August 2016

Construction Engineering Intern/Co-op

- Developed new Microsoft Access database and streamlined programming of existing databases
- Audited contractors' rigging plans for construction using structural design drawings
- Proofread and edited standards and documents

ACADEMIC PROJECTS

Study and Post-Occupancy Evaluation of Center for Sustainable Landscapes Spring 2018

- Conducted Post-Occupancy Evaluation (POE) on occupants to assess comfort and satisfaction
- Compiled report on POE results and suggested potential improvements for building management
- Created mock control system and GUI using Simulink to demonstrate success of improvements

LEADERSHIP EXPERIENCE

CMU Humanist League

President May 2017 – May 2018

- Organized speaker events, including all necessary logistics
- Led and managed exec board meetings and members

Vice President May 2016 – May 2017

Social Chair May 2015 – May 2016

SKILLS

Programming Languages: Moderate: Visual Basic for Applications (VBA); Basic: Python

Software: Advanced: Microsoft Office (Word, Excel, Powerpoint, Access); Moderate: Mathcad;

Basic: ANSYS, MATLAB/Simulink, AutoCAD, Revit

Certifications: EIT Certification in progress