

Bach Phan

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TECHNICAL SKILLS

- **General:** Product Development, Project Scheduling, Mechanical Design, Physical Modelling in MATLAB
- **Software:** Microsoft Word, Excel, PowerPoint, Outlook, Abaqus, AutoCAD, SolidWork, MATLAB, Mathematica, Slack
- **Computer Languages:** C/C++, Java, Python, MATLAB/SimuLink

EDUCATION

Bachelor of Science(B.S) in Mechanical Engineering,

Expected June 2019

University of Washington, Bothell, WA

(Senior)

- GPA: 3.42
- Annual Dean's List

EXPERIENCE

Senior Capstone Project, Instrumented Buoy

Dec 2018 - Present

- Develop a sizing guide for the buoy under various static considerations (aspect ratio, draft, and righting moment) using MATLAB
- Study the geometry of the mooring line using analytic solution and numerical physical model to figure out the loading condition at the keel of the buoy
- Communicate with the EE/CS team in our design choices and constraints through email

Ocean Noise Research Assistant, University of Washington

May 2018 - Dec 2018

Research Professor: Shima Abadi PhD

- Developed a robust, well-documented program in MATLAB to collect, analyze, and visualize the survey data, providing correlation between offshore industrial equipment's noise and ocean noise collected during the marine survey
- Processed and analyzed marine data tapes containing the computed positions of vessel and in-water airguns using C and MATLAB
- Collaborated in a team of four to appoint weekly tasks, and estimate time-line for completion dates by holding monthly meeting

Finite Element Method Solver, Side Project

Mar 2018 - Present

- Work on a 2D finite element solver written in C++ capable of scripting in Lua
- Create visualization of stress gradient in Matlab from the output of the program
- Maintain a database of mechanical properties of steels and woods for finite element modelling

CAMPUS INVOLVEMENT

Trickfire Robotics, NASA Robotic Mining Competition

Aug 2018 - Present

Embedded Programmer Team Member

- Plan unit tests with a team of 3 for independent node-level ROS program
- Write scripts to visualize graph of nodes and topics without a local robot connection
- Communicate and working closely with other team members to gather information and document the code base for future projects

ASHRAE Club, Active Member

Feb 2018 - Present

- Work jointly with 4 other members as party planning committee
- Manage the club's Slack channel