# Pongpak Techagumthorn

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#### **EDUCATION**

## University of Washington Bothell

Bothell, WA

B.S in Physics (exp.) June 2021

o Dean's List: Spring 2020

- o Awards: Awarded Excellence in Experimental Physics by Dr. Subramanian Ramachandran on May, 28th 2021
- Relevant Courses: Thermal Physics, Statics, Dynamics, Intro to 3D modeling and analysis, Computational Physics, Condensed Matter Physics, Mathematical Physics, Experimental Physics, Electromagnetism, Astrophysics, Quantum Mechanics

#### SKILLS

Software: Solidworks, Autodesk Inventor, Autodesk Fusion 360, Autodesk HSM, SketchUp, Microsoft Office

Programming Languages: Java, HTML, CSS, LaTeX, Python, MatLab

Machines: 3D Printer, Laser Cutter, Lathe, Mill, Bandsaw, Drill Press, CNC Milling, MIG Welding

#### EXPERIENCE

#### UW Bothell collaboratory (Formerly UW Bothell Makerspace)

Bothell, WA

Student staff member

Autumn 2019 - Present

- o Trained UW Bothell students, faculty, and staff on equipment usage and safety protocols
- Provided technical consultation for makerspace user projects
- o Developed safety manuals and standard operating procedures for makerspace equipment
- Led small and large group orientation sessions for incoming students and community partners

#### UW Bothell TrickFire Robotics Team

Bothell, WA

Mechanical Design Lead

Summer 2017 - April 2021

- Worked in a medium sized team setting to design and manufacture a robot for NASA's annual Robotic Mining Competition
- Utilized Soldiworks CAD software to design robot and prepare files for manufacturing
- Ran basic Solidworks FEA simulations to evaluate robot design
- Employed manufacturing skills to machine robot parts on manual mills and lathes
- Ensured interoperability of the mechanical system with electrical and software systems

#### Projects

### Semiconductor Materials for Ultra High Frequency Transistors

April 2021 - Present

UW Bothell

- Developed transistor models to run simulations of transistor devices in an LTSpice environment
- Developed test procedures to compare ultra high frequency behavior of semiconductor materials
- Authored a scientific paper on the findings of this project and presented the findings at the UW Bothell Spring 2021 Capstone Colloquium

### UW Bothell ASME Hackathon

2017

 $UW\ Bothell$ 

- Worked with the UW Bothell ASME Chapter to run a Hackathon revolving around the campus garden
- Oversaw the purchasing of tools and materials for the hackathon
- Ensured hackathon participants were using tools and materials in a safe manner