Anqi Xu

Engineering Physics
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SKILLS

Programming: C programming, Java, Arduino, Git, Intellj, Visual Studio, Matlab, Excel
Electrical: Altium, Soldering, Multimeters, Oscilloscopes
Mechanical: Solidworks, Prototyping, Engineering Drawings
Languages: English (native), Mandarin (fluent)

TECHNICAL EXPERIENCE

UBC Rocket — *Aerostats Co-Lead* *Sept 2020 - Present*

- Created and launched a meteorological balloon to test wind conditions up to 30km high to determine the suitability for rocket launches
- Designed and soldered circuits for electrical components, focusing on lightness and efficiency due to the limited payload capacity of the balloon
- Programmed an Arduino to take input from sensors and regularly transmit data
- Communicated with suppliers and companies for sponsorship, fully funding 53% of our project

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TECHNICAL PROJECTS

Email Analyzer - *Java*

- Used graph theory to collect advanced metrics regarding interactions, whilst using metrics to filter such interactions through Java programming
- Parsed through a text file to create directed and undirected graphs
- Generated reports on certain users and time frames, as well as compared users based on different types of activity

Text Document Analysis - *Java*

- Created a document analyzer using Java that parsed through websites or text files to determine sentence and word level metrics, and similarity
- Developed algorithms to perform linguistic analysis using the Google Sentiment Analysis API
- Compared documents and partitioned them accordingly using similarity metrics
- Tested application using JUnit and regression testing

Arduino Robotic Claw - *C*

- Mechanically developed an autonomous claw that senses and picks up objects of various shapes and sizes, ranging from an almond to a full pop can

- Led development of firmware for functionality of mechanical components of claw using C and the Arduino IDE
- Prototyped and tested various mechanical iterations to optimize design and precision

Cardboard Chair - *Mechanical Design*
- Created a full-sized chair purely out of cardboard that held over 300 pounds without breaking
- Used interlocking supports to maximize strength and prioritized the user through back and arm supports for ergonomic strength
- Placed first out of 6 teams by using rapid full-scale prototyping with cardboard to analyze areas of weakness

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EDUCATION

The University of British Columbia *Sept 2020 - May 2025*
Engineering Physics, Bachelor of Applied Science, 86.3%

NON-TECHNICAL EXPERIENCE

Sweet Factory Nanaimo — *Assistant Manager* *Nov 2017 - Mar 2020*
- Created product displays and provided excellent customer service
- Performed administrative work, inventory calls, employee training, and product classification

Environmental Club — *President* *Sept 2016 - Jun 2020*
- Initiated a variety of different activities, including school cleanups, recycling programs, elementary school outreach, fish foraging research, and Earth Week celebrations
- Started a classroom composting program and led the push for a zero waste cafeteria, replacing all single-use cutlery with compostable materials
- Raised funds and awareness to international affairs by raising 461 dollars for the Australian Wildfires and Amazon Rainforest

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HOBBIES

Environmentalism, Hiking, Journaling, Reading