

# AYDEN NGUYEN

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## EDUCATION

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### University of British Columbia (UBC)

Bachelor of Applied Science — Computer Engineering — 3.9/4.0 CGPA

Vancouver, BC

Sep. 2023 – Present

## EXPERIENCE

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### Engineering Design Team Lead - Power and Controls

UBC AeroDesign – Aircraft & Avionics

Sep. 2023 – Present

Vancouver, BC

- Leading team of 6 designing power distribution circuits and propulsion systems for team aircraft
- Optimized propulsion system to achieve thrust-to-weight ratio of 1.29, among the highest in team history
- Wrote C software for Arduino, load cell, and electronic speed controller to automate thrust-testing of motors and propellers, minimizing testing time by 50%

### Undergraduate Teaching Assistant

UBC Department of Computer Science

Sep. 2024 – Dec. 2024

Vancouver, BC

- Proctoring computer-based examinations and assisting students with technical/scheduling issues, maintaining efficient examination throughput
- Wrote web-scraper with Python and pandas to obtain all scheduled exams throughout the year, ensuring all sessions are accounted for and eliminating manual data entry

## PROJECTS

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### Linux Server | Ubuntu Virtual Machine, Docker, SMB, PostgreSQL, Cloudflare

Sep. 2019 – Present

- Implemented Linux storage server using TrueNAS, Ubuntu Virtual Machine, and RAID for security camera captures and personal files
- Used Docker to isolate applications, gaining networking/software deployment expertise
- Installed open-source software to securely access personal photos from mobile device from anywhere
- Exposed all services through a single proxy and TLS certificate, reducing deployment time by 90%
- Achieved image tagging leveraging a Java program to invoke API requests to a neural network model running on an NVIDIA GTX 1060 GPU for fast inference

### PantryPatrol – Course Project | Java, JUnit, Data Structures, Spring Boot, Docker

Oct. 2024 – Dec. 2024

- Developed a meal tracker to track expiry dates, suggest meals, and catalog groceries, reducing the burden of manual meal preparation
- Implemented meal suggestion algorithms based on grocery expiry dates
- Designed user interface with login, grocery, and meal entry, and server communication with Spring Boot to return lists of users' groceries and meals from a concurrent, custom JSON database
- Tracked development on GitHub, collaborated with a team of 5

### NewsMapper – nwHacks 2025 | Java Spring Boot, React.js, MongoDB, Vercel

Jan. 2025

- Participated in Western Canada's largest hackathon
- Designed a full-stack web application displaying news events and their locations on a map
- Implemented backend with Java Spring and MongoDB to scrape 20k news events in the past year
- Deployed backend on Oracle Cloud compute and React.js frontend on Vercel, allowing worldwide access
- Achieved instantaneous access to unbiased and informative world events by location and time

## TECHNICAL SKILLS

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**Software:** Java, JUnit, Spring Boot, Git, Github, MongoDB, REST API, HTML/CSS, Python

**Cloud Infrastructure:** Oracle Cloud Compute, Cloudflare, NGINX, REST API, TLS

**DevOps:** Debian Linux, Docker, Virtualization, RAID

**Embedded Systems:** Embedded C, ESP32, Arduino, Raspberry Pi

**Libraries:** NumPy, Matplotlib