

AMANDA YANG

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EDUCATION

The University of British Columbia · Bachelor of Applied Science, Computer Engineering

September 2021 — Present

- Dean's Honour List, UBC Engineering Co-op program

EXPERIENCE

Software Developer · SynthoCrate

January 2023 — Present

- Developing an **AI-driven** platform for streamlined literature reviews—screening, data extraction, and bias assessments—for clinical research
- Leading the full development of the consumer-facing front-end webpage with **TypeScript** and **React** using shadcn component library
- Working directly with project manager and backend team to make informed system design decisions

Software Developer · UBC AeroDesign Engineering Design Team

May 2023 — Present

- Designed and implemented **UI and data presentation improvements** for GUI for competition-critical real-time altitude data acquisition and autonomous aircraft deployment status monitoring using **React**
- Improved **UI/UX of PySide6 (Qt)** GUI for mission-critical ground station operations involving manually labelling targets, changing the state of the plane, and sending the drop power autonomous delivery aircraft command to the plane
- Utilized **Python** to **debug** avionics architecture system components, managing and resolving issues through **Git/GitHub**

Brand and Social Media Strategist · Freelance · Portfolio [↗](#)

May 2023 — Present

- **Conduct meetings** and communicate with clients to determine project goals and customize strategies based on their capacities
- Create comprehensive **brand identity** documents and social media **marketing plans** in alignment with branding and target market

Marketing Director · UBC AeroDesign Engineering Design Team

June 2022 — Present

- Drove an **81.2% increase in social media audience reach** compared to the previous year, with a **149% increase in engagement** within one fiscal quarter, through **analyzing consumption data** of social media platforms and the creation of media
- Achieved a **263% increase in recruitment community membership** in 3 months, through targeted marketing efforts
- Fostered an inclusive and positive atmosphere within admin team, resulting in a **more than 4X increase in internal marketing engagement**
- Developed comprehensive branding guidelines tailored to the target market audience and **optimized branding integration** within the team

PROJECTS

Chat App · Software Construction II

Ongoing

- Developing a **secure chat application** with **user authentication**, **web attack protection**, and **session management** for reliable user experience
- Developed a dynamic single-page application (SPA) using **HTML**, **CSS**, and **JavaScript**, enabling seamless user interactions
- Crafting application modules, employing a **Model-View-Control (MVC) pattern**, to **dynamically update the DOM** tree in response to shifts in the application state, with a focus on components like **real-time chat functionalities** and **centralized navigation** features

Story Snippets

Ongoing

- **Full-stack website** inspired by TikTok trends with **secure user login system** that allows users to upload and interact with story prompts
- Utilizing **Redis**, **Apollo**, and **PostgreSQL** to manage databases through **MikroORM & TypeORM**, ensuring seamless storage & retrieval of uploads
- Developing front-end system with **TypeScript**, **React**, and **Next.js**, using the Chakra UI component library to create responsive and aesthetic UI
- Enabling **Create, Read, Update, and Delete (CRUD) operations** with **MikroOrm** through **GraphQL**, providing efficient management of entities

Noodle Doodle · nwHacks 2024 · DevPost [↗](#)

January 2024

- Multidisciplinary project with an **iOS app** to control a **custom noodle-making machine**, allowing users to customize their perfect bowl of noodles
- Awarded **1st place** in the wild card category among **700+ hackers** and **176 projects**
- Collaborated with team to define the **minimum viable product (MVP)**, balancing feature prioritization within time and resource constraints
- Crafted public-facing interfaces, including **iOS UI/UX prototypes**, a pitch deck, and the **mechanical design** of noodle-making machine

RGBA Photo Editor · Algorithms and Data Structures

January 2024

- Implemented a **C++** program for photo editing, incorporating functionalities like grayscale conversion, darkness spotlight, watermark overlay, and duotone effects through **RGBA manipulation** and **Euclidean distance calculations**

IoT Analytics Server · Software Construction I

December 2023

- Scalable IoT analytics Java server for handling sensor data with **real-time processing**, **client interaction**, and **QoS** management
- Developed network communication with **web sockets** and **multithreading** for seamless event transmission in **client-server interactions**
- Engineered effective **error-handling mechanisms**, including event sending retries and wait times, significantly improving **system reliability** under challenging network conditions

Responsive Personal Portfolio Website · Launch [↗](#) · GitHub [↗](#)

January 2023

- Designed website layout for variable screen sizes through **Figma** wireframes **used by 1,100+ users**
- Developed a fully responsive website using vanilla **HTML** and **CSS**

SKILLS

- **Programming Languages:** Java, C, C++, Python, JavaScript, TypeScript, System Verilog, ARM Assembly
- **Web Development:** HTML, CSS, React, GraphQL, URQL, Apollo, Node.js
- **GUI Libraries & Frameworks:** PyQt, PySide6
- **Database & ORM:** PostgreSQL, MikroORM, TypeORM, Redis
- **Development & Testing Tools:** Git, Github, Visual Studio Code, Docker, IntelliJ, Gradle
- **Design:** Figma, Adobe Creative Suite: Illustrator, Photoshop, Premiere Pro, After Effects