# **Trevor Dang** Computer Engineering Student

604-657-9007 | trevor.dang14@gmail.com | trevdang.github.io | LinkedIn | GitHub | Citizenship: Canada and US

# **TECHNICAL SKILLS**

Programming Languages: C, C++, Java, Python, JavaScript, TypeScript, Dart, Shell Script, Verilog, Assembly (x86, ARM)

**Technologies:** Git, Linux, IntelliJ/Android Studio, AWS, Google Cloud, Kubernetes, Docker, Jenkins, PostgreSQL, MongoDB, MySQL, Flutter, AngularJS, Django, Node.js, React.js, Next.js, Tailwind, Express.js, Bookshelf.js, Prisma, Jest

## **EDUCATION**

#### **University of British Columbia**

September 2020 - Expected May 2026

Bachelor of Applied Science, Computer Engineering

Relevant Courses: Algorithms and Data Structures, Software Construction, Digital Design, Microcomputers, Web Development, Operating Systems

#### **TECHNICAL WORK EXPERIENCE**

# Broadcom, (Richmond, B.C.)

#### Software Engineer Intern

September 2023 - April 2024

- Assisted in development of API Gateway technology using a variety of programming languages such as Java and Bash scripting for code infrastructure and DevOps, and technologies such as Google Cloud, VMware, Kubernetes, and Docker to deploy gateway
- Utilized virtualization technologies on Google Cloud combined with Jenkins CI/CD pipelines to provide a deployment environment for gateway integration and functional tests
- Integrated external API Gateway assertions into centralized repository to reduce technical debt and provide higher quality monitorization of gateway functionality
- Maintained codebase through manual and automated testing across multiple API Gateway form factors using a variety of different Java testing frameworks providing stability in Jenkins test pipelines

### WelTel, (Vancouver, B.C.)

#### Full-Stack Developer

**January 2023 - August 2023** 

- Developed and refactored 35+ new and existing software features/components for a healthcare web application utilizing Angular (TypeScript), HTML/CSS, NG-ZORRO for the front-end features and Node.js and Bookshelf.js for the backend features
- Utilized a Model View Controller Service (MVCS) architecture to create RESTful APIs using controllers to manage communication between front-end and backend services
- Implemented new fields for data models with relational database mapping to store thousands of patients' personal information for healthcare workers to provide correct diagnoses and treatment
- Refactored codebase to execute server code on AWS cloud utilizing services such as API Gateway, Lambda, SQS, and RDS
- Conducted user acceptance testing (UAT), end-to-end (E2E) testing, and unit testing across a large platform using Jest test suites while following agile workflow using JIRA

# **Promag Enviro Systems,** (Langley, B.C.) **Software Developer**

May 2022 - August 2022

- Developed an interactive water monitoring app that interacts with hardware utilizing Flutter for front-end features, Django and PostgreSQL for backend features, and Python and Single Board Computer (SBC) for IoT features
- Implemented RESTful APIs in Django to communicate with SBC's database through AWS IoT Core using MQTT to increase data transfer frequency from 10 minutes to 5 seconds
- Created a secure provisioning script in Python that utilizes AWS IoT Core and Things to provide personalized SBC configurations
- Constructed SBC Bluetooth commands to receive Bluetooth request from mobile devices so an SBC can be self-registered to a user account to provide device ownership

# **TECHNICAL PROJECTS**

Study AI | Devpost | GitHub | Edtech Award Winner | Next.js, Tailwind, Prisma, MySQL

April 2023 - May 2023

- Designed and created an engaging studying application using Next.js and Tailwind for front-end features and Prisma and MySQL for backend features in order to help students with attention deficiencies focus better in classroom settings
- · Integrated a web scraping keyword generation algorithm based on a user-inputted topic to highlight specific transcribed words
- Implemented user authentication using NextAuth.js that allowed for user-specific classes, notes, and transcriptions and securing routes and resources within the application

#### Chat App | GitHub | HTML, CSS, JavaScript, Node.js, Express.js, MongoDB

September 2022 – December 2022

- · Designed a chatting web app using HTML, CSS, and JavaScript that utilized a Model-View-Control (MVC) design pattern
- Created REST endpoints and web socket features using XMLHttpRequest API and Express is to allow data exchanging between client, server, and MongoDB via AJAX requests to update chatrooms and conversation histories
- Developed an authentication mechanism to allow users to login and have their own server resources protected by a session manager that allocates unique session cookies