

# M SHABRAJ SHAHID

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## Skills

**Languages:** Java, C, Python, JavaScript, HTML, CSS, PHP, TypeScript, SQL, CUDA, jQuery, XML, Bash, Dart

**Frameworks:** React, Next.js, SCSS, Tailwind CSS, Node.js, Express.js, Metasploit, NMAP, Aircrack-ng, Burp Suite, Flutter, FastAPI, Pytest, Jest

**Other:** Postman, MongoDB, PostgreSQL, Docker, Linux, Google Cloud, AWS, Digital Ocean

## Education

**University of British Columbia**

Sept 2018 - Apr 2023

**Computer Science Major, Psychology Minor**

RELEVANT COURSEWORK

- COSC 310 SOFTWARE ENGINEERING - Developed large software systems using various techniques and tools, such as specification, design, implementation, testing, and maintenance.
- COSC 360 WEB DEVELOPMENT - Designed and implemented web-based information systems and app development using standard technologies such as HTML, CSS, SVG, JavaScript, PHP, SQL, JSON, and XML, including modern scripting frameworks and libraries.
- COSC 404 DATABASE SYSTEM IMPLEMENTATION - Learned fundamental concepts in constructing database systems, including file organizations, storage management, system architectures, query processing/optimization, transaction management, recovery, and concurrency control, as well as additional topics such as distributed databases, mobile databases, and integration.

## Professional Experience

**RentalHunt – Software Developer/ Executive**

Jan 2023 – Present

- Executed front-end development tasks using **NextJS** and **React**. Developed and implemented over 250 unit tests with **Jest**, resulting in a 30% increase in code coverage.
- Managed back-end operations utilizing **FastAPI** and **Python**, in conjunction with **PostgreSQL**. Leveraged **SQLAlchemy** for Object-Relational Mapping (**ORM**) and **Alembic** for database migrations.
- Collaborated in the development of **UML** diagrams, participated in sprint planning, and contributed to the system design and implementation of the Admin Panel.

**Light-Up Kelowna – Systems Designer**

Sept 2022 – Dec 2022

- Enhanced an existing software platform using **C** for Mac OS deployment, introducing functionality to enable artists to independently upload videos to the platform.
- Integrated connectivity with three projectors, consolidating operations to a singular MacOS. Utilized **pjLink** and **pjTalk** to synchronize the three projectors effectively.
- Leveraged **OpenGL** to flawlessly project artist videos across the three projector screens, ensuring seamless multimedia performance.

**Alternator Gallery – Technician**

May 2019 – Jan 2021

- Resolved a variety of operating system **issues**, and efficiently managed software **installations** on client machines to ensure optimal performance.
- Provided technical support and guidance to local artists, assisting in the integration of technology in their art installations.
- Conducted network **troubleshooting**, facilitated **firewall** setups, and successfully configured **proxies**, thereby enhancing network security and functionality.

## Projects

**Capstone Project | UBC**

**PharmaPal**

- Developed frontend of the application using **React** and **NextJS** using **TypeScript**. Implemented over 200-unit tests using **React Test** covering modules consisted of Authentication, Authorization, Quizzes and Admin panel.
- Developed backend using **ExpressJS** and **TypeScript**. Implemented manual testing using **Postman** and **Bash** scripts.
- Contributed to developing UML diagrams, sprint planning and system design of Admin Panel, and implementation of Admin Panel.
- Practiced agile development process. Contributed to sprint planning and worked as a team.
- Implemented **CI/CD** using **GitHub Actions**, deployed the product on **Vercel**.

**Software Engineering Project | UBC**

**Nova Chatbot**

- Developed a feature to add a **Sentiment Analysis Toolkit** from Stanford API. Used **POS Tagger** to extract certain parameters from user input.
- Implemented text-to-speech to increase user accessibility.
- Developed GUI of the chatbot using **JSwing**.

## Certifications

- **Offensive Security Wireless Professional (OSWP) | Offensive Security**
- **Kali Linux Certified Professional (KLCP) | Offensive Security**
- **Computer Networking | Google**