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## PROFESSIONAL SUMMARY

Software Engineer with hands-on experience in full-stack development and DevOps practices. Proficient in JavaScript, TypeScript, Python, and C++, with a strong background in building scalable applications using React, Node.js, and Express.js. Passionate about leveraging technology to create innovative solutions that drive positive outcomes.

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## EDUCATION

Simon Fraser University, Burnaby, BC

Jan 2019 - Sept 2024

### Bachelor of Science, Computer Science

**Related Coursework:** Artificial Intelligence, Computer Graphics, Computational Data Science, Computer Vision, Android Development, Operating System, Computer Architecture, Software Development, Cyber Security, Big Data, Multimedia Systems, Data Structures

**GPA:** 2.83/4.33

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## SKILLS

- **Programming Languages:** JavaScript, TypeScript, Python, Java, C/C++, HTML, CSS, Bash, Assembly (x86), Kotlin, Haskell, R
- **Frameworks & Libraries:** React, Node.js, Express.js, Django, Vue.js, Next.js, Jest, JUnit, Spark
- **Tools & Applications:** Git, Docker, Terraform, Nginx, Postman, Visual Studio Code, Android Studio, Figma, Balsamiq, MATLAB, Firebase, OpenAI API, Restful API and Fast API architecture, Open API standards, MongoDB, PostgreSQL, Confluence, Jira, Google Cloud Platform, AWS, ArcGIS
- **Platforms & Environments:** Linux (Debian, Ubuntu), Windows, macOS
- **Hardware & Embedded Systems:** Arduino, Raspberry Pi 4, Marlin Firmware, Klipper Firmware

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## WORK EXPERIENCE

Experfy Inc, Westborough, MA

June 2023 - Present

### Full-stack Software Developer (Remote)

- **Developed** a cloud-based HR platform (ATS and CRM) using **React**, **Node.js**, and **Express.js**, creating a modular and scalable architecture.
- **Implemented microservices** for HR functionalities with **RESTful APIs**, enhancing system modularity and scalability.
- **Optimized backend performance** by integrating **Redis** for caching and asynchronous processing, resulting in a **35% reduction in response times**.
- **Automated deployments** using **AWS**, **Docker**, and **Kubernetes**, **reducing deployment times by 30%**.
- **Automated infrastructure provisioning** with **Terraform**, leading to a **40% increase in system capacity** during peak usage.
- **Ensured security compliance** with **GDPR** and **CCPA** by implementing secure authentication using **OAuth 2.0** and **JWT**.
- **Enhanced CI/CD pipeline**, collaborating with DevOps and QA teams to improve system performance.
- **Migrated legacy monolithic systems to microservices**, increasing system resilience and scalability.

Simon Fraser University, Burnaby, BC

August 2023 - Dec 2023

### Research Assistant

- **Assisted in developing** a pose detection and correction application to monitor aging individuals and recommend exercises to prevent posture-related health issues.
- **Utilized Mediapipe, Python, TensorFlow**, and **OpenCV** to implement foundational pose detection features.
- **Integrated Mediapipe's pose estimation models**, enabling detection of human posture and movements.
- **Processed video input streams** to extract key pose landmarks, facilitating preliminary posture analysis.

- **Improved application stability** by identifying issues during testing sessions and debugging code errors.
- **Created and updated documentation** for the codebase and workflows to support future development efforts.
- **Collaborated with the research team**, attending regular meetings to discuss progress, challenges, and next steps, ensuring alignment with project goals.

Rapidia Tech Inc., Vancouver, BC

January 2022 – May 2023

### Software Engineer

- **Upgraded Rapidia Host V3 REST APIs to OpenAPI standards**, improving efficiency and interoperability.
- **Integrated Rapidia Slicer with Cura**, streamlining the 3D printing workflow and enhancing user experience.
- **Developed a Python-based AI model** reducing paste wastage by **70%**, lowering costs and improving print quality.
- **Implemented automated testing** using **Jest** and **GitHub Actions**, increasing code quality and reducing bugs.
- **Improved installation process** by creating an automated setup with a user-friendly GUI, **reducing customer setup time by 50%**.
- **Enhanced user documentation** with detailed instructions and visuals, improving the onboarding experience.

### Software Engineer Co-op

- **Built** a software platform for **Raspberry Pi 4** using **TypeScript**, **Express.js**, and **Marlin Firmware**, enabling advanced 3D printing management.
- **Implemented real-time features** including **communication protocols**, **G-code parsing**, and **3D rendering with Three.js**, enhancing system responsiveness.
- **Managed hardware interfaces** (GPIO, Wi-Fi), improving system reliability and performance.
- **Redesigned UI** using **Material-UI (MUI)**, enhancing user engagement and satisfaction.
- **Led transition** to a **Dockerized microservices architecture**, improving stability and scalability.
- **Enhanced software stability**, **reducing customer complaints** related to system crashes.
- **Integrated CI/CD pipelines** with **Docker**, **Nginx**, and testing frameworks, streamlining deployment processes.
- **Developed a MAC address-based access manager**, increasing security and reducing print failures.
- **Optimized resource management**, **reducing memory usage by 50%** and enhancing overall performance.
- **Collaborated with QA and support teams**, incorporating feedback for iterative improvements and higher customer satisfaction.

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## ACADEMIC PROJECTS

CMPT 365 – Android Development

November 2023 – Dec 2023

### Fluent Hands – Sign Language Interpretation and Learning App

- **Developed an Android app in Kotlin** for American Sign Language (ASL) learning, utilizing **Mediapipe** for gesture recognition and **XML** for UI layouts.
- **Created the camera activity and learning/result pages**, enabling real-time gesture recognition and feedback.
- **Integrated Firebase APIs** for user authentication and data management in the login activity.
- **Led a team of five**, focusing on implementing core functionalities and enhancing the user interface.
- **Achieved recognition as the best project based on applied concepts and complexity of project in a class of 150–180 students**, based on professor feedback.
- **Improved accessibility** for ASL learners by providing an interactive and user-friendly platform.
- **Project on GitHub:** [Fluent Hands Repository](#)

CMPT 419 – Human and Data Centric AI

March 2024 – Mar 2024

### Dishcovery – Food Recognition and Recipe Recommender AI

- **Developed** a web application called DishCoverly in CMPT 419 (Human and Data-Centric AI), collaborating with two colleagues using **Django**, **TensorFlow**, **Convolutional Neural Networks (CNN)**, and **ResNet**.
- **Trained a food recognition AI model** on datasets from **Roboflow** to provide recipes based on detected ingredients.
- **Integrated GPT-4 APIs** for personalized recipe recommendations tailored to user preferences.
- **Received excellent feedback from the professor**, highlighting the project's innovation and technical proficiency.
- **Enhanced user experience** by delivering accurate and diverse recipe options, increasing user engagement.
- **Project on GitHub:** [DishCoverly Repository](#)