

Nishim Singhi

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EDUCATION

The University of British Columbia

Vancouver, BC

Bachelor of Applied Science - Computer Engineering — GPA: 4.0/4.33 | Dean's Honor List Sep. 2022 – Apr. 2026

EXPERIENCE

Software Development Engineer Co-op

Jan 2025 – Present

Microchip

Vancouver, BC

- Created and deployed a reference repository to assist developers at NASA in integrating external libraries compatible with SoC's Linux OS, streamlining third-party library adoption for spaceflight applications
- Automated external library integration by designing a Jenkins pipeline and developing Bash scripts to streamline the building and deployment of library artifacts, ensuring compatibility with an Ubuntu-based Docker environment
- Executed HPCC (High-Performance Computing Cluster) benchmarks, validating system stability and performance
- Agile methodology was followed with regular sprints and efforts to clear backlogs. DevOps practices were adhered to for CI/CD, ensuring automated builds, testing, and deployments to streamline development

Full-Stack Web Developer

Mar 2024 – Present

The Ubysey Publications Society

Vancouver, BC

- Contributed to developing a Content Management system for Ubysey, enabling editors to create e-newspapers efficiently as a lead developer. The website is read by 120,000 unique users every month
- Created a responsive events page by scraping content from UBC events page using React along with SASS, HTML, and Django. This page became the second highest viewed on the website, achieving over 2,000 daily views.
- Implemented automated cross-browser regression testing with Selenium in Docker, integrating it into a CI/CD pipeline via GitHub Actions to prevent critical bugs from reaching production
- Improved the website performance by 20% measured by Google Lighthouse by reducing its loading time

PROJECTS

Shopalytics - nwHacks | *React, MongoDB, Flask, YoloV8*

Jan 2025

- Collaborated with a team of 4 to develop a web app to help store owners track customer behavior by leveraging YoloV8's computer vision system, along with DeepSORT and OpenCV
- Created a responsive frontend using React, seamlessly integrating it with Flask to display real-time analytics
- Developed a MongoDB-based data pipeline to analyze customer movement, monitor population flow, and track conversion rates, enabling store owners to optimize layouts, product placements, and marketing strategies

Blackjack Android App Development | *Android Studio, Java, XML, FIGMA*

May 2023

- Designed an interactive Blackjack game for Android mobiles, using Java for the game logic and XML for intuitive UI design, enhancing user engagement through responsive gameplay
- Conducted extensive testing across 4 different types of device form factors to ensure the app's responsiveness and backward compatibility with Android 8.0 (Oreo). Also, tested to verify app doesn't crash on those devices

Traffic Signal Detection | *C++, Python, TensorFlow, OpenCV, ROS, NumPy, pandas, matplotlib*

Jan 2025

- Designed a traffic sign recognition pipeline for autonomous vehicles using an Intel RealSense camera for image capture and OpenCV for image preprocessing
- Trained a Convolutional Neural Network (CNN) using TensorFlow, achieving 99.4% validation accuracy by employing dropout layers to mitigate overfitting and enhance robustness
- Seamlessly integrated image preprocessing and machine learning nodes through ROS2 messaging in real-time

TECHNICAL SKILLS

Languages: Python, JavaScript/TypeScript, Java, C, C++, MySQL, Bash, HTML, SCSS, YAML

Technologies: React, Django, Selenium, OpenCV, NumPy, Scikit-Learn, Matplotlib

Tools: Jenkins, GitHub Actions, Docker, AWS, Bitbucket, Webpack, Linux, JIRA, FIGMA

Certifications: AWS Cloud Practitioner