First Last

778-888-8888 firstlast@gmail.com linkedin.com/firstlast github.com/firstlast firstlast.github.io

Education

University of British Columbia Expected: May 2028
Bachelor of Applied Science – Biomedical Engineering, Maching Learning Specialization *Vancouver, Canada*
Coursework: Data Structures and Algorithms (Java), Machine Learning (Python), Discrete Math, Probability and Statistics

Technical Skills

Programming: Python, Java, R, C, C++, TypeScript
Technologies: NumPy, scikit-learn, PyTorch, React.js, Express.js, Node.js, MongoDB
Knowledge: Natural Language Processing, Neural Networks, Image Processing, Computer Vision

Experience

UBC Interdisciplinary Student Research Team Jan 2025 – Present
Machine Learning Engineer

- Spearheading weekly discussions on advanced machine learning techniques with a team of 15 domain experts, enhancing interdisciplinary research collaboration
- Optimized and consolidated 20+ Python scripts, achieving a 20% increase in performance for facial expression classification models used for real-time emotion detection in clinical studies
- Implemented convolutional neural networks using PyTorch, focusing on feature extraction with pooling layers and hyperparameter tuning, resulting in a 15% increase in model accuracy for image classification tasks

UBC Biomedical Engineering Student Council Sep 2024 – Present
VP Spirit

- Strengthening student community by organizing monthly events tailored to 600+ BME students
- Leading weekly discussions about student engagement strategies to improve accessibility and student engagement
- Coordinating in a team of 4 to deliver engaging in-person announcements in lectures and social media posts

Projects

Personal Website | *TypeScript, React.js, Figma, Vercel, Frontend Development, UI/UX Design* firstlast.github.io

- Maintaining my personal website deployed with GitHub Pages that attracts over 50+ unique monthly visitors
- Designed UI components and user experience in Figma for streamlining requirements gathering and specifications
- Built a design system for reusable and modular components used across the website in TypeScript using React.js

Avocado Price Prediction Model | *Python, NumPy, scikit-learn* GitHub

- Built a machine learning model that predicts avocado prices with 95% accuracy using the Naive-Bayes classifier
- Designed a preprocessing pipeline to ingest 5+ datasets to train the classification model based on avocado weight, size, and time of year for efficient data normalization

Digit Classification System | *Python, Tkinter, NumPy, PyTorch* GitHub

- Developed a digit classification system with an intuitive GUI for drawing hand-written digits and a robust neural network for real-time classification
- Achieved a 98% classification accuracy by applying grid search for tuning convolutional neural network (CNN) layers, kernels, and hyperparameters to optimize feature extraction and model performance
- Integrated data augmentation techniques to enhance model generalization and robustness, ensuring high accuracy across diverse handwriting styles

Bacterial Culture Simulation | *Java, JUnit, Concurrency, Object-Oriented Programming, Software Testing* GitHub

- Built a simulation to model the growth of bacteria cultures by designing a graph data structure representation
- Implemented 8 bacteria models in Java with thread-safe operations to model the nature of bacterial interactions
- Built a suite of automated tests with JUnit to verify program correctness with over 90% line coverage