Lakshya Balchandani

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EDUCATION

University of Waterloo   Waterloo, ON
Honours Bachelor of Mathematics (Expected 2025)   *Sep 2020 – Present*

EXPERIENCE

Interac   Toronto, ON
Software Engineer Intern (Payments)   *Sep 2023 – Present*

- Enhanced legacy **staging servers** dedicated to emulating Canadian financial institutions
  - Migrated codebase to latest **E-Transfer API** version, refactoring **200+** breaking changes in **Typescript** to ensure seamless compliance with REST specifications
  - Developed authentication middleware for **Node.js** application to securely communicate with internal E-Transfer endpoints using **proxy servers in Go** and **JWTs**
- Spearheaded the agile design and development of a debt management tool called **Settle** as a product owner
  - Collaborated with cross-functional teams to synthesize customer feedback from UX market research
  - Translated **10+** Figma designs into a mobile app built using **React Native**, **Nest.js**, and **Postgres**

Quanergy Systems   Ottawa, ON
Full Stack Engineer Intern   *Sep 2022 – Dec 2022*

- Led the redesign of a performance evaluation web app provided to clients, improving user engagement by **40%**
  - Built a hierarchical filter with **JavaScript/React** to enhance pattern recognition in sensor data
  - Engineered new infrastructure to periodically query JSON data from a **Postgres** database and dynamically build tags for a growing set of **80+ metrics**
- Programmed a JavaScript Slack bot to deliver daily dashboard metric health reports to upper management, saving the team **5+ hours** of manual analysis per week

City of Kitchener   Kitchener, ON
Data Science Intern   *Jan 2022 – Apr 2022*

- Performed a geospatial cluster analysis using **Python** and **AWS Sagemaker** to address aggressive driving across **30+** city vehicles, discovering **6** red zones with markers for high fuel consumption
- Deployed a computer vision program using a **TensorFlow object detection API** to automate the discovery of potholes in 360-degree panoramic images, saving the city **10+** hours of processing time monthly

Ladder Therapeutics   Toronto, ON
Machine Learning Developer Intern   *May 2021 – Aug 2021*

- Built an **unsupervised ML** program with **Python** to access the impact of chemical structures on molecular data, optimizing the disease **classification workflow by 25%**
- Conducted **exploratory data analysis** using **Seaborn** and **Plotly** to generate **heat maps** and **line graphs** of patterns and trends within **1000+** feature-engineered data samples

PROJECTS

Scroll No More | *Python, React, AWS*

- Built a web app on top of a recommendation engine to help users pick out a movie to watch without spending hours scrolling; the algorithm makes personalized suggestions based on 10+ user variables, with a 95% success rate

Fraud Protec | *Python, React*

- Developed an algorithm that scans transaction data for potentially fraudulent information and runs an authenticity check for the user with a reported 85% accuracy

TECHNICAL SKILLS

Languages: Python, Typescript, JavaScript, Go, C, SQL, HTML/CSS, R
Frameworks/Tools: Git, Docker, Postman, React, Node, Nest, Postgres, AWS, Redis, RabbitMQ, Postman, TensorFlow