JATIN MEHTA

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EDUCATION

University of Waterloo **Sept 2021 – April 2026 (Expected)**
*Bachelor of Computer Science (Co-op) - **Cumulative Average - 90.8%*** *Waterloo, Canada*
Coursework: Object Oriented Programming, Operating System, Distributed Systems, Algorithms, Cryptography

WORK EXPERIENCE

Geotab **September 2023 – April 2024**
Software Developer Co-op (Data Platform Team) *Toronto, ON*

- Developed and deployed a **REST API** using **Java, Docker, Kubernetes and Google Cloud** to measure the performance of "Snap-to-Road" algorithms that fulfilled **1 billion+ requests** a day.
- Enhanced uptime monitoring by emulating end user behavior using **Puppeteer** and **Google Cloud**.
- Improved reliability of a **React + TypeScript** app by enhancing test coverage to over **80%** using **Jest**.

Cradle Technologies **May – August 2022, January - April 2023**
Software Engineer Co-op (Full Stack) *Toronto, ON*

- Built a **Node.js** authentication microservice, leveraging cryptography concepts to securely store and interact with private keys of over **14,000 accounts**, saving **$50,000+** every year.
- Worked extensively on the core **Flask** server and **MongoDB** database which were used in demos to raise **$4M**.
- Scaled core backend service to serve **10,000+** concurrent users using **Gunicorn** and **RabbitMQ**.
- Wrote **40+** unit tests with **PyTest** and deployed through **GitHub Actions**, reducing downtime by **20%**.

Royal Bank of Canada (RBC) **July 2021 – August 2021**
Software Development Intern *Remote (Toronto, ON)*

- Recognized as the **top tech contributor** in the intern program for developing a tool to streamline conducting Agile retrospectives for **10+ development teams** using **React, TypeScript and SQL**.

Zappos Family of Companies **July 2020 – August 2020**
Machine Learning (ML) Intern *Remote (Las Vegas, NV)*

- Developed a pipeline using **Python, Blender and AWS EC2** to generate 3D models from images used for Augmented Reality (AR) features which were released to **over 1 million users** in beta.
- Generated synthetic datasets in **Unity** using **C#** to train image semantic segmentation models and to prototype foot tracking deep learning models using **Convolutional Neural Nets** (CNNs) in **PyTorch**.

TECHNICAL SKILLS

Languages: Python, C, C++, C#, Java, JavaScript / TypeScript, SQL, GraphQL, Rust, HTML, CSS
Technologies: React, Node.js, MongoDB, PostgreSQL, Spring, Docker, Kubernetes, Flask, Jest
Tools: Git, Linux, AWS (S3, EC2), Google Cloud (GKE), Android Studio, Unity, Jenkins

OTHER

University of Waterloo **August 2024 – Present**
Undergraduate Research Assistant *Waterloo, ON*

- Worked with Prof. Xiao Hu in the **Data Systems Group** to implement state-of-the-art (SOTA) sparse matrix multiplication for database query processing and output size estimation (join and project) using **C++**.

MIT-PITT-RW Autonomous Racing Team **April 2022 – September 2024**
Software Developer (Simulation and Infrastructure Team) *Toronto, ON*

- Improved developer tools used to run simulations using **ROS2**, **Docker, Linux, C++** and **Python**.
- Traveled to Italy for Dallara AV21 race car track testing at **Monza** (F1 track) and contributed to ICRA paper.