Ryan Merheby

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EDUCATION & QUALIFICATIONS

University of Toronto   Toronto, ON, Canada
HBSc in Computer Science; Arts and Science Internship Program; GPA: 3.95/4.00   *Sept 2021 - Apr 2026*
- **Honors & Awards**: 2023 & 2024 Dean's List Scholar, Chancellor's Scholarship for High Academic Achievement
- **Activities & Research**: Started and led two officially recognized study groups for foundations of CS

Languages & Technologies: Python, Java, C++, JavaScript, HTML/CSS, SQL, Haskell, Git, Django, React, Groovy

EXPERIENCE

University of Toronto   Toronto, ON, Canada
Teaching Assistant   *Sept 2025 - Dec 2025*
- Leading weekly labs for CSC207 (Software Design) in the Fall semester
- Grading midterms, exams, and final projects

Meta   Bellevue, WA, United States
Software Engineer Intern   *May 2025 - Aug 2025*
- Worked on the AI Infra team, using **PyTorch** to optimize model processing for Instagram & Ads
- Built a multi-stage validation component in the model processing workflow - mitigating a validation gap that impacted many production models & caused major outages
- Extended the project by creating a suite of CLI tools for ad-hoc weight validation of published model snapshots
- Implemented distributed chunk processing of weight pruning as a side project, decreasing peak memory usage by **14%**

Veeva Systems   Toronto, ON, Canada
Software Engineer Intern   *May 2024 - Apr 2025*
- Led development of **Java** internal debugging tool allowing for secure API calls in customer instances
- Added multivalue fields for user info & optimized aggregation calls, reducing user table load times by ∼**0.2 seconds**
- Created new DB tables, service & API for new revision history feature for medical data processing tasks
- Wrote **Groovy** scripts for Pfizer & Bayer to convert medical data to match regional standards

University of Toronto   Toronto, ON, Canada
Student Researcher   *May 2024 - Aug 2024*
- Wrote research report & presented project on applying 1st order logic to create **explainable AI** in generative design
- Converted natural language → 1st order logic → generative design models using Fusion 360 API & a fine-tuned LLM

Careem   Dubai, UAE
Data Engineer Intern   *Jun 2023 - Aug 2023*
- Designed a dynamic resource routing model for **PrestoSQL** queries boosting performance by ∼**10%**
- Conducted data visualization & created **Grafana** performance dashboards for the query engine
- Developed features & wrote **JUnit/Mockito** tests for the migration from PrestoSQL to Trino

PROJECTS

DebrisMine - Environment-focused Social Media App for non-profit Oceanic Impact:
- Worked with **7** developers to expand the **React Native** app to include groups, article posting, likes & comments
- Implemented **Django** backend **MVC** architecture for new features & **selenium** article web scraping

PetPal - Pet Adoption Website ↗:
- Led a team of **4** developers to create a **React** & **Django** pet adoption site
- Designed the UI & backend services for user profiles, adoption listings & pet info pages

Clinic Management Application ↗:
- Worked on a team of **8** developers to build a **Java** clinic management application
- Spearheaded the development of database & controllers (**MVC Architecture**)