UBC Science Co-op

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Michael DeMarco 4th-year at UBC; formerly at Tesla, Amazon; 8-time TA

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Education

University of British Columbia, B.Sc. Honors Computer Science (Co-op), minor in Data Science

Expected Grad: Apr 2024 GPA: 4.33 (93%) Coursework: Data Structures and Algorithms (96%) Computer Systems (95%) Software Construction (95%)

Skills

TypeScript, Python, Java, C, C++, SQL, NoSQL, Node, React, Bash, Docker, Kubernetes, Terraform, AWS, Azure, GCP

Leadership, communication, accountability, tenacity

Extracurriculars Phi Gamma Delta,

Philanthropy Chairman Jan 2022 to present

AMS of UBC Vancouver,

Food Bank Volunteer
May 2021 to present

Major League Hacking,

Workshop Lead (3x) Sep 2020 to present

Awards

Undergraduate Teaching Assistant Award May 2022

Trek Excellence Scholarship (Top 5%) Sep 2021

Djavad Mowafaghian Presidential Scholar Apr 2019

Work Experience

Software Engineer Intern, Tesla

Palo Alto, California—Sep 2022 to Dec 2022 | Site

- Collaborated on internal mapping tool to optimize Supercharger placement.
- Overhauled parts of **React** codebase to improve modularity and testability.
- Added test infrastructure to Flask API; achieved 80% coverage overall.

Software Engineer Intern, Amazon

Toronto, Ontario—May 2022 to Aug 2022 | Site

- Enhanced user onboarding with tailored product tours in **React** frontend.
- Developed API using **TypeScript** and **Jest** with >95% code coverage.
- Introduced automated linting to surface and correct hundreds of type errors.

Software Engineer Intern, Samsung

Vancouver, British Columbia—Jan 2021 to Aug 2021 | Site

- Migrated monolith to service-oriented architecture with **React** and **Node**.
- Integrated headless UI library to streamline logic across 15+ dashboards.
- Improved test coverage from 70% to >90% across core **Node** services.
- Created **Node** service to transform data from an **ETL** pipeline and **Kafka** event stream into analytics rendered on **React** dashboard.
- Refactored **MongoDB** queries to improve performance by up to 50%.

Technical Projects

Midtermr, generate practice exams using web-scraping and Svelte Vancouver, British Columbia—Nov 2022 | Project | GitHub

- Built app to create exams from online content using Svelte and Python.
- Demo video has 2,000+ views, and tool has generated hundreds of exams.

Showrooms, show off your desktop setup and make money from it Vancouver, British Columbia—Jan 2021 | Project | GitHub

- Co-created app with **React** and **Node** to allow users to share desk setups.
- Earned 3rd overall prize at BizHacks 2021 against 50+ teams.

Visual Studio Code Puzzles, simplify technical interview problem practice Vancouver, British Columbia—Jun 2020 | Project | GitHub

- Built tool to bring interview "puzzles" into an IDE using **TypeScript.**
- Won Microsoft's "Best Use of External API" award and has 200+ users.

Nominatr, facilitate paperless nominations for student elections Vancouver, British Columbia—Mar 2020 | $\underline{Project}$ | \underline{GitHub}

- Created utility to comb survey data and send emails using Java and AWS.
- Sent 500+ emails in production saving 20+ hours of work for election team.

Interests

Linguistics, physics, economics, reading, soccer, jazz, piano