Marta Debrina Togatorop

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EDUCATION

University of British Columbia

Vancouver, BC

BSc Combined Major in Computer Science and Physics

Sep. 2022 - May 2026 (expected)

• **GPA**: 3.5/4.0

• Relevant Coursework: Algorithms & Data Structures, Software Engineering, Object-Oriented Programming (Java), Quantum Mechanics, Computational Physics, Applied Linear Algebra, Probability & Statistics

EXPERIENCE

Undergraduate Teaching Assistant

Sep. 2024 – April 2025

University of British Columbia Faculty of Physics

Vancouver, BC

- Guided students through data analysis and coding for physics experiments using Python and Jupyter.
- Explained concepts in computational modeling and signal interpretation during lab sessions.

Undergraduate Research Assistant

May 2024 – Aug. 2024

University of British Columbia, Vantage College

Vancouver, BC

- Designed and implemented Python algorithms to analyze multivariate datasets of student performance.
- Applied statistical and mathematical modeling to identify trends in learning behavior.
- Created visualizations and reports for research team using matplotlib and pandas.

AI & Robotics Summer Program

May 2023 – July 2023

Suzhou Industrial Park Institute of Vocational Technology

Suzhou, China

- Participated in a government-sponsored summer program focused on AI, robotics, and emerging technologies.
- Gained hands-on experience in microcontroller programming, robot mechanics, and basic machine learning,
- Developed practical skills in applying technology concepts to real-world engineering challenges.

PROJECTS

Peerfect Z | React, FastAPI, MongoDB, Auth0

2025

- Developed a peer-to-peer tutoring web app where students can post requests, get matched instantly, and exchange points instead of money.
- Built the frontend with React (custom design system) and connected to a FastAPI backend with MongoDB for real-time request handling.
- Integrated Auth0 for secure authentication and implemented request validation to prevent self-acceptance.

TasteVan ☑ | FlutterFlow, Firebase Auth, Firestore, Cloud Functions v2

2025

- Built a restaurant finder web app in FlutterFlow with login, search filters, and favorites/visited lists.
- Integrated Firebase Auth and Firestore for user accounts, data storage, and user lists.
- Implemented secure API calls to the Yelp Fusion API through Firebase Cloud Functions v2 for restaurant search.

insightUBC 🗹 | Javascript, HTML, CSS, Typescript

2024

- Collaborated in an academic course project with two team members, using Agile and Scrum methodologies.
- Built a query engine for UBC course and room data using a TypeScript backend and JavaScript, HTML, CSS frontend.
- Gained practical experience in software engineering principles.

PuppyPal 🗹 | Java, JUnit, JSON, SWING GUI

2023

- Built a dog management application in Java.
- Managed data reading and writing using JSON objects.
- Implemented both console-based UI and graphical UI with the Java SWING library.

SKILLS & PERSONAL

Languages: Python, Java, JavaScript, TypeScript, MATLAB

Front-end: React.js, FlutterFlow, HTML, CSS Back-end: FastAPI, Node.js, Firebase, MongoDB

Tools/Frameworks: Git, Jupyter, Figma