Matthew Andersen Haryanto

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EDUCATION

University of British Columbia   Sept. 2023 – May 2027
B.Sc. Combined Major in Computer Science and Statistics   *Vancouver, Canada*
Relevant Coursework: *Object Oriented Programming, Basic Algorithms and Data Structures, Introduction to Computer Systems, Computer Hardware and Operating Systems*

EXPERIENCE

Quantitative Developer   Oct. 2025 – present
UBC Trading Group   *Vancouver, Canada*
- Engineered a live trading simulator using **Python** + **FastAPI** with async WebSocket streaming, enabling real-time price feeds and trade execution.
- Designed RESTful APIs and backend services for order fills, portfolio tracking, PnL, and analytics used by automated trading bots and internal dashboards.
- Containerized the system using **Docker** and GitHub Actions, improving development speed and reliability.

Web Developer   July 2024 – present
Gado-gado Indonesian Student Association UBC   *Vancouver, Canada*
- Developed and deployed a **Node.js** + **Express** backend with a **PostgreSQL** database to store user data, manage event postings, and provide secure admin APIs.
- Refactored the webpage UI with **React** to modernize the design, resulting in a **146.8%** increase in traffic.
- Improved website performance by optimizing deployment processes and project architecture, reducing build time by ~**3 minutes** and significantly boosting site speed.

Frontend Lead Developer   Aug. 2024 – Oct. 2025
UBC Orbit ALEASAT Design Team   *Vancouver, Canada*
- Constructed an interactive 3D components using **Three.js** to visually represent the intricate parts of the satellite.
- Led a team of **5 developers** to successfully develop a comprehensive website showcasing our satellite while simultaneously developing on the satellite's dashboard.
- Developed the satellite dashboard and club's website using **Next.js** and **Material-UI**, ensuring a responsive UI.
- Conducted **a 100% coverage end-to-end** testing to identify and resolve usability issues, improving the overall functionality and user satisfaction of the dashboard and website.

TECHNICAL PROJECTS

OpenGL Desktop App | *OpenGL, C++, GLSL*   Dec. 2025 - present
- Built a minimal OpenGL rendering application in C++ using shaders (GLSL) to render 3D objects.
- Implemented the full graphics using linear algebra, including model, view, and projection transformations.
- Used vector and matrix operations for camera control, coordinate transformations, and perspective projection.

Homee ↗ | *React Native, PostgreSQL, ASP.NET Core*   Nov. 2025 - present
- Developed a full-stack mobile marketplace using React Native and ASP.NET Core for peer-to-peer homemade food commerce.
- Implemented core features including user authentication, product listings with image uploads, search/filter functionality, and secure AI kitchen validation.

b.env - [NwHacks '25 Best Security Hack] ↗ | *Next.js, Go, RabbitMQ, Solidity*   Jan. 2025
- Developed a decentralized API key sharing service to address security threats, leveraging blockchain to prevent over **12 million** annual API key exposures.
- Overcame challenges in Solidity to implement smart contracts on the Ethereum blockchain.
- Integrated MetaMask, enabling secure API key storage and user authentication for **100%** decentralized

TECHNICAL SKILLS

Languages: C#, Java, C/C++, HTML5/CSS, Javascript, Typescript, PHP, JQuery, Python, R, SQL, Go, JSON
Frameworks: React, Next.js, Node.js, JUnit, TailwindCSS, FastAPI, Docker, PostgreSQL, .NET Core, Express, Cypress
Developer Tools: Git, Google Cloud Platform, VS Code, Visual Studio, IntelliJ, Unity, Blender, Cursor. Ubuntu