William Edwardo Gunawan

william.gunawan@torontomu.ca • wiledw.com • linkedin.com/in/william-gunawan/ • github.com/wiledw

EDUCATION

Toronto Metropolitan University | **Toronto, ON**   Expected Graduation May 2025
Bachelor of Science in Computer Science   GPA:3.74

EXPERIENCES

Full-Stack Engineering Intern | Esportium   *May 2024 - Present*
- Participate in designing and developing a scalable full stack program using **C#**, **ASP.NET**, **Typescript** and **React.js**, achieving a **25%** faster loading times and an improved user experience.
- Designed and implemented a **RESTful API** to facilitate **front-end** to **back-end** communication, improved application performance by **30%** and reduced average response time by **50%**.
- Designed and developed unit testing for controllers and services using **Moq** and **XUnit**, improving code coverage by **70%**.

Hackathon Participant | GenAI Genesis Google Hackathon Winner   *March 2024*
- Managing a team of four to develop SageAI, leveraging the **MERN** framework to build an online web application platform designed to make healthcare diagnostics faster, more accurate in early disease detection, and increasing healthcare affordability.
- Developed a multi-modal AI diagnostic tool by integrating **Google-BERT** for textual symptom analysis, **Google Imagen** via **Vertex AI** for converting user-uploaded images into textual descriptions and **BiomedCLIP** for biomedical scan classification, achieving over **90% diagnostic accuracy** across **41 unique diseases**.
- Developed a **RESTful API** in **Express.js** that executes a Python model script, reducing disease diagnosis time by **20%**.

Full-Stack Developer | Cove   *May 2023 - Aug. 2023*
- Led the design and development of the **Discord REST API** to connect technicians with tenants for housing problem resolution by enabling request processing from the Cove website to the Discord server, resulting in a **20%** reduction in API response time.
- Collaborated with cross-functional teams to integrate testing strategies into the **CI/CD pipeline**, reducing deployment times by **50%** and minimized production issues by **20%**.
- Set up and maintained **MongoDB** database for storage, retrieval, and manipulation of data, leading to improved data accessibility.

PROJECTS

EcoFind | Next.js, TypeScript, AWS, Supabase, Node.js, Python, OpenAI
- Designed and developed a serverless architecture using **AWS** services such as **Cognito**, **API Gateway**, **Lambda**, and **DynamoDB**, resulting in a **40%** reduction in infrastructure costs and a **30%** increase in application performance.
- Integrated **Google Maps API** and browser-based **geolocation** services, enabling users to locate nearby 3D waste recycling facilities with **95%** accuracy, displaying distance and time estimates from the user's address to the nearest facility, significantly enhancing the application's utility and user experience.
- Developed a custom **LangChain** AI chatbot using **OpenAI**'s model, integrated with **Supabase** to store comprehensive Ecofind documentation, providing real-time support and detailed information on the application's features, functionality, and sustainability.

Heart Failure - Machine Learning Research | Python, Pandas, Numpy, Matplotlib, Scikit-learn, K-modes, Seaborn
- Leverage Python for **data preprocessing**, outlier removal, hyperparameter tuning and **K-Prototypes clustering algorithm**.
- To ensure robust and unbiased cluster formation, the elbow method was used for optimal cluster determination, leading to the identification of relevant patient subgroups with over **90% clustering accuracy**.

Buyyit | HTML, CSS, JavaScript, Node.js, Express.js, React.js, MongoDB, Jwt Authentication, Socket.io
- Led a team of 4 to develop a responsive advertisement platform for TMU students, integrating secure user authentication, a mobile-optimized interface, and an intuitive ad posting system.
- Engineered **advanced search functionality** and a **secure communication platform**, while also creating an admin dashboard to streamline ad management and enhance user interaction.

Rent-A-Ryde | HTML, CSS, JavaScript, Node.js, Express.js, SQL, Oracle
- Designed and developed a Car Rental Service System with a visually engaging and intuitive user interface.
- Developed **RESTful API** endpoints and **optimized** complex **SQL** queries for an **Oracle** database, resulting in a **25%** improvement in data retrieval and loading speeds, significantly enhancing system efficiency.

AthletX | Java, JavaFX, Oracle
- Managed a group of 6 to develop an Online Department Shopping System using **JavaFX** for dynamic **front-end** design and **Java** for robust **back-end** functionality, ensuring seamless integration and a cohesive user experience.
- Successfully leveraged **Oracle SQL** and **Java** to design and implement a robust data storage solution, ensuring reliable and efficient management of product data.
- Applied the **Agile Model** and **Jira** for project management and initiated standup meetings, leading to an **85%** boost in team productivity and streamlined development processes.

TECHNICAL SKILLS

Languages: Python, Java, JavaScript, TypeScript, C, C++, C#, HTML5, CSS3, SQL, Prolog, Bash
Technologies: Git, Docker, Node.js, Express.js, React.js, Next.js, Spring, ASP.NET, MongoDB, Postgres, Supabase, Oracle, Jira, Agile
Public Cloud: AWS Services (API Gateway, Lambda, DynamoDB, Cognito, EC2, S3, RDS, IAM, Cloudwatch), Google Cloud Platform
Interests: Data Structure & Algorithms, Full-Stack Development, Software Engineering, Data Science, Data Analyst, Machine Learning