

Emma Thadine Wijaya

Recent Computer Science graduate from Curtin University with strong academic record and real-world experience in full-stack software development. Passionate about machine learning and skilled in Java, Python, SQL and JavaScript with proven ability to collaborate with teams in creating digital solutions. Seeking a graduate or internship role to kick-start my career in tech and gain valuable experience!

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Experience

Student Software Engineer Intern @ Deloitte, Perth Feb 2025 – Oct 2025

- Built machine learning pipelines for stock prediction and portfolio optimization applications in Python using NumPy, scikit-learn, TensorFlow, XGBoost, Matplotlib, achieving 70-75% returns accuracy during testing.
- Worked on backend API endpoints and routes in Node.JS and Flask, connecting the Azure Cloud-based application to the ML models. Designed the frontend UI prototype for the web-app interface in Figma.
- Gained experience with quantum computing frameworks Qiskit and PennyLane.
- Served as scrum master during development phase, improving quality of deliverables and communicating with product owners according to Agile practices.

Reactive Support Expert @ Ever Nimble, Perth Nov 2025 – Present

- Delivered real-time technical support to end users, diagnosing and resolving software, network, and hardware issues within defined SOPs and troubleshooting. Collaborated with engineering teams to identify recurring issues and recommend proactive improvements.

Freelance Software Developer @ Self-employed, Remote Jun 2021 – Present

- Developed custom mobile and web applications for clients in JavaScript, React.JS, Node.JS, SQLite, MongoDB, Android Studio, Kotlin, Python and Java, handling front-end and back-end development.
- Deployed applications with third-party integrations such as APIs, cloud-stored databases, authentication systems for improved functionality and user experience.

Education

Bachelor of Computing (Major in Computer Science) @ Curtin University, Perth Feb 2023 – Nov 2025

- CWA: 91.9%, Merit Scholarship Recipient

Achievements and Awards

- Awarded **'Most Outstanding First Year Student in Computing'** and **'Most Outstanding Second Year Student in Computing'** by the Science and Engineering Faculty and School of EECMS Student Awards 2023 and 2024 for achieving the highest academic result in the cohort.
- Four-time achiever of the **'Vice Chancellor's List'** award in Semester 1 and 2 of 2023 and 2025, being in the top 1% of undergraduates.
- Received **'Dean's Letter of Commendation'** six times in recognition of achieving a High Distinction CWA in every semester of study.

Projects

Building Number Recognizer @ Curtin University, Perth Jul 2025 – Present

- Constructed a machine perception program using the YOLO Object Detection Algorithm to detect and recognise building numbers on the Curtin Bentley campus for a smart navigation program.
- Devised Python scripts involving image processing, feature detection and extraction, training and testing machine learning models.
- Utilised YOLO v8, OpenCV, Sci-kit Learn, TensorFlow, and Python to produce machine learning pipeline.

BLEVE Blast Pressure Predictor @ Curtin University, Perth Mar 2025 – May 2025

- Devised multiple machine learning models to predict the pressure of BLEVEs using structured simulation datasets
- Performed data preprocessing, model tuning and ensembling to deploy a stacked ensemble of neural networks and boosted tree models, achieving 75% reduced computation time compared to traditional simulator predictions while maintaining ~10% prediction error differences.

Project Manager and Lead UI Designer @ Curtin University, Perth Feb 2025 – May 2025

- Led the design process of a mobile application aimed at helping older adults reduce dementia risk through healthy lifestyle choices, in collaboration with the Dementia Centre of Excellence @ Curtin University.
- Managed project timelines, task delegation and milestone tracking to ensure successful and on-time project completion.
- Communicated with clients, team-members and supervisors frequently to ensure design choices aligned with client vision.

Personal Projects

Bloggy – Real-Time Blog Management Platform

Apr 2025

- Developed a secure, full-stack web platform enabling users to post, edit and browse other user-made blogs.
- Engineered backend with Node.JS and Express.JS, using Passport.JS for authentication, Socket.IO for real-time notification delivery and updates, and MongoDB/Mongoose for scalable data storage.
- Designed and implemented responsive frontend interface with React.JS, Bootstrap and CSS.

Paris Olympics Database Management System

Nov 2024

- Designed and created a relational database to manage Olympic data, processing 10,000+ rows of data from Kaggle, implementing data cleaning and normalization
- Built a Python-based query interface, enabling dynamic data retrieval and insights, as well as applying advanced SQL queries and joins to support complex analytics
- Parameterized queries and input sanitization to prevent SQL injection threats.

CalTrack – Calorie Tracker App

Oct 2024

- Created an Android calorie tracking app with Kotlin, integrating RESTful APIs and JSON parsing to fetch and process nutritional data
- Applied asynchronous tasks, cloud storage using Google Firebase, UI/UX design principles in Figma to produce visually appealing interfaces and functional, optimized responsive performances

Skills

- **Programming:** Java, Python, SQL, JavaScript (Node.JS, React.JS, Express.JS), HTML, CSS, Kotlin, C, C++
- **Data Engineering and Machine Learning:** Pandas, NumPy, scikit-learn, TensorFlow, database design, SQL, CV
- **Software Engineering Practices:** Agile methodologies, version control, API development, data structures and algorithms, software design patterns, cloud and computer networks, UI/UX design, testing and debugging
- **Problem Solving and Analytical Thinking:** Proven ability to tackle complex coding challenges and translate them into practical solutions
- **Collaboration and Communication:** Experienced in communicating to clients through real-world projects, as well as collaborating with teams in delivering software
- **Adaptability and Continuous Learning:** Quickly adapts and thrives in new environments, high interest in self-improvement and emerging technologies

Volunteering Work

STEM Study Buddies Leader @ Curtin University, Perth

Mar 2024 – Aug 2024

- Directed mentoring sessions for COMP1007 and ISAD1000 at Curtin University, assisting 20+ students in understanding core programming concepts and software engineering principles.
- Fostered a collaborative learning environment, encouraging students to improve problem solving skills and build confidence through weekly meetings.

Public Relations Officer @ Mathletes SISKG, Jakarta

Jan 2021 – Dec 2022

- Maintained relationships between 30+ math clubs across various schools in Jakarta, creating content for social media accounts and writing correspondence emails.
- Coordinated and liaised for the 2021 Singapore School Math Olympiad (SISMO), handling registrations for 250 contestants from 40 schools all over Indonesia.

Founder, YouTube Manager and Content Creator @ Techtorial SISKG, Jakarta

Jan 2019 – Dec 2021

- Founded and organized a student-led non-profit YouTube channel focused on educating students and teachers on educational software during the COVID-19 pandemic.

Volunteer Participant @ eHack for Charity, USA

Dec 2020

- Created an application for health check-ups for people affected by natural disasters.

Referees

Available upon request.