

RODO NGUYEN

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SUMMARY

- An engineer passionate about building impactful software products and Machine Learning (ML).
- Possess 1+ year of real-world experience in developing high-performance and maintainable software, integrating data analytics and ML.
- A fast learner with strong programming fundamentals and project management skills.

SKILLS

- **Machine Learning:** PyTorch, Sklearn, Pandas, Numpy, Matplotlib.
- **Full-stack:** ReactJS, VueJS / FastAPI, ExpressJS, .NET
- **AWS for a scalable infrastructure:** EC2, Redis, DynamoDB, S3, Lambda.
- **Languages:** Python, C#, JavaScript, Java, HTML/CSS, SQL, Bash Script.
- **Project management:** Agile, Atlassian suite (Trello, Confluence, etc.).
- **Others:** Linux/Ubuntu, Git/GitHub, Embedded Systems, Docker, Test-driven development.

EXPERIENCE

Graduate Software Engineer – *AerVision Technologies* June 2023 – Present

- Demonstrated an adaptive learning approach by rapidly integrating third-party video management software into the company's video analysis system – AerWatch – via its SDK using **.NET**.
- Promptly identified and rectified critical bugs and customised responses for edge case errors in AerMeal Portal (**FastAPI, AWS Lambda**), resulting in a more seamless and error-free platform.
- Took initiative to create comprehensive documentation/tutorial of AerMeal Frontend codebase, fostering seamless collaboration among team members while mastering **VueJS** to maintain this product.

Research Assistant – *QUT* Feb 2023 – June 2023

- Implemented, benchmarked and compared performance of different YOLO models in a novel sport setting. (NDA signed)

Vacation Researcher – *CSIRO-Data61* Nov 2022 – Feb 2023

- Single-handedly explored and produced thorough evaluation of suitable C++ ML libraries for an EdgeAI project.
- Optimised ML model's memory consumption by x8 times with innovative training strategy which uses smaller loads of training dataset in reused pre-allocated memory while the accuracy also slightly increased.
- Modified the library source code and rigorously tested it on both Ubuntu PC and Raspberry Pi to efficiently collect data, gain insights about the resource consumption and ensure inter-device stability of the library.

Software Engineer – *S23M* | *GitHub* Mar 2022 – Nov 2022

- Built an app with a minimal yet, modern User Interface for an international health organisation to interact with its health data server (Create-Read-Update-Delete). Utilised React, NodeJS, Bootstrap.
- Developed many core features/components: data query/edit through RestAPI, multi-parameter query, and intuitively queried result presentation on the web app.
- Led a 4-person team, ensured progress is on-track, and communicated clearly with the product owner to build a product that met their expectation in each sprint.

HIGHLIGHT PROJECTS

BitTracker

Pandas | *Time-series data, Finance* | [GitHub](#) | [Blog](#)

- Programmed a cryptocurrency trading bot in Python that can auto trade efficiently while guaranteeing minimal risk.
- Backtest results showed +110% profit annually on average. This is made possible by utilising SuperTrend algorithm, analytically assessing each configuration's risk-adjusted return and selecting the top performers.
- Applied Object-Oriented Programming to facilitate maintainability and extensibility as more features were integrated into the trading bot.

CoolerDate

MongoDB, Express, React, NodeJS | *Web App* | [GitHub](#)

- A unique full-stack app built to make "Asking someone out for a date" simpler and even more special.
- Applied MERN architecture (MongoDB, ExpressJS, React, NodeJS), designed suitable database schemas, programmed multi-step forms and a multitude of API endpoints, and utilised React Hooks (e.g., useMemo), all of which have broadened my experience in Full-stack development, System Design, and Database Modelling.
- Fully automated server testing process using Chai framework due to growing level of complexity.

Twitter E-nalyst

React, ExpressJS, AWS, RestAPI | *Web App* | [GitHub](#)

- Built a React web application with a modern UI that generates keyword sentiment analysis on Twitter.
- Implemented serverless using AWS EC2, Elastic Load Balancing and Auto Scaling stack to scale with inconsistent usage and save cost on low traffic.
- Sped up response time by 10 times by integrating persistence and in-memory caching services (S3, Redis, DynamoDB).

EDUCATION

Queensland University of Technology (QUT)

Graduated in 2022

Bachelor of Information Technology - GPA: 6.4 / 7.0

Computer Science Major; Intelligent Systems Minor