RODO NGUYEN

rodonguyendd@gmail.com
+61 488 752 890
rodonguyen.dev
LinkedIn/in/rodonguyen
GitHub/rodonguyen

SUMMARY

- A Junior Software Engineer passionate about building impactful 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

A combination of 4+ years of experience in software development and ML integration:

- **Full-stack:** ReactJS, VueJS, MeterialUI / FastAPI, ExpressJS, .NET
- **AWS for a scalable infrastructure**: EC2, Redis, DynamoDB, S3, Lambda.
- **Machine Learning:** PyTorch, Sklearn, Pandas, Numpy, MatplotLib.
- **Languages:** Python, C#, JavaScript, 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* April 2022 – Present

- Demonstrated a proactive and adaptive learning approach by rapidly integrating Genetec Security Center through its SDK into the company's backbone computer vision analysis system in **.NET**.
- Exhibited exceptional problem-solving skills by promptly identifying and rectifying critical bugs and customised responses for edge case errors (**FastAPI, AWS Lambda)**, resulting in a more seamless and error-free AerMeal platform.
- Took initiative to create comprehensive documentation/tutorial of AerMeal Frontend codebase, fostering seamless collaboration among team members while mastering **VueJS** to develop this product.

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

- Single-handedly explored and produced extensive evaluation of suitable C++ ML libraries for a new EdgeAI & Computer Vision project.
- Optimised ML model's memory consumption by x8 times with creative training strategy which uses smaller loads of training dataset in a pre-allocated memory amount.
- 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, AgGrid, Bootstrap.
- Developed many core features/components: data query/edit through RestAPI, multi-parameter query, and presenting queried results intuitively 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.
- Constructed detailed onboarding documentation and tutorials for future developers.

Vacation Researcher – *QUT* Dec 2021 – Apr 2022

- Evaluated the effectiveness of Verifiable Python (vPython) by testing, improving it and ensuring output consistency.
- Developed a complete automated analysis pipeline (Bash Script and Python), that eliminated ~95% of manual work, automating: executing the programs, analysing output, and recording results.
- Won the Outstanding Achievement Award at the end of the program.

HIGHLIGHT PROJECTS

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).

฿itTracker
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 and analytically assessing each configuration’s risk-adjusted return and profit/loss distribution.
- Applied Object-Oriented Programming to facilitate maintainability and extensibility as a large number of features were integrated into the bot.

EDUCATION

Queensland University of Technology (QUT) Graduated in 2022

Bachelor of Information Technology - GPA: 6.4 / 7.0

Computer Science Major; Intelligent Systems Minor