

# RODO NGUYEN

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## SUMMARY

- A Computer Science Graduate passionate about top-notch technology, ML and building awesome software.
- Possess 2+ years of experience in software development, data and ML (machine learning).
- Strong programming fundamentals. A fast learner with project management skills.
- Champion of writing clean and maintainable code. Security at heart.

## SKILLS

4 years of building software and machine learning models, 1 year working in Brisbane's top research institutions:

- **Python:** 4 years building Software, [Machine Learning models](#) with Keras, PyTorch, Sklearn; Trading Bot and Data Visualisation/Analysis with Pandas, Numpy, Matplotlib; [Leetcode](#).
- **JavaScript, HTML/CSS:** 3 years developing Full-stack App. Frameworks & Tools: AWS (DynamoDB, Redis, EC2, Auto scaling, etc.), React, Docker, Express, MongoDB, Chai, Bootstrap, Material UI, etc.
- **C#, C/C++, Java:** 2 years programming Object-Oriented Programming projects
- **SQL:** 2 years working with relational and non-relational databases; MySQL, SQLite, MongoDB.
- **Project management:** Jira, Agile, Trello, Scrum.
- **Others:** Linux/Ubuntu, Git/GitHub, Embedded Systems, Bash Script, ETL.

## EXPERIENCE

### Tutor IFB102 – [QUT](#)

Mar 2023 – June 2023

- Delivered comprehensive knowledge of IFB102 – Intro to Computer Systems – to 2 classes of 25 students each, covering Hardware, Operating Systems, Cloud, Security, Raspberry Pi OS, etc.
- Made the class as interesting and practical as possible.

### Vacation Researcher – [CSIRO-Data61](#)

Nov 2022 – Feb 2023

- Single-handedly explored and evaluated suitable C++ ML libraries for a new EdgeAI & Computer Vision project.
- Optimised ML model's memory consumption by x8 times by utilising smaller loads of training dataset.
- Modified the library source code and rigorously tested on both Ubuntu PC and Raspberry Pi to collect data, gain insights about the resource consumption and ensure inter-device stability of the library.
- In the end, revised the progress and drew a viable "Deployment Phase" plan for the future team which is to utilise this library to run on-device ML training on Raspberry Pi Zero W.

### 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.
- Programmed many core features/components: data query/edit through RestAPI, multi-parameter query, and presenting queried results intuitively on the client-side.
- 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.

### Software Engineer Intern – [QUT](#)

Dec 2021 – April 2022

- Evaluated the effectiveness of Verifiable Python (vPython) by testing, improving it and ensuring output consistency.
- Developed a completely automated analysis pipeline (Bash Script and Python), that eliminated ~95% of manual work, covers these steps: executing the programs, analysing output, and recording results.
- Won the [Best Poster Award](#) at the end of the program.

## HIGHLIGHT PROJECTS

(sorry for the length but they are all awesome)

### 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.
- Reduced response latency by 10 times by integrating persistence and in-memory caching services (S3, Redis, DynamoDB).

### 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 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.

### Personal Website

React, HTML, CSS | [rodonguyen.dev](#) | [GitHub](#)

- Programmed and deployed my personal website from scratch with React.
- Customised HTML/CSS to obtain responsiveness on any device screen (no styling frameworks). This project has broadened my knowledge of User Interface (UI) Design a lot.
- Highlight UI features: grid and media utilisation in CSS, Dark Mode, minimised navigation menu.

## EDUCATION

### Queensland University of Technology (QUT)

Graduated 2022

Bachelor of Information Technology - GPA: 6.4 / 7.0

Computer Science Major; Intelligent Systems Minor

## VOLUNTEERING & ADDITIONAL ACHIEVEMENTS

Ravi's Study Program: 3-month Intensive Programming Bootcamp	2023
HiQ Concierge at QUT: Worked collaboratively and communicated effectively to serve our students, staff and the public	2022
Australian GovHack: <a href="#">Honourable Mention</a> with project "Outlier" in Youth Education and Employment	2021