

Gowthaman Aravindan

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Education

National University of Singapore

Bachelor of Engineering, Major in Computer Science

Expected May 2024

Experience

Advanced Micro Devices (AMD)

June 2022 – Present

Software Development Intern

Singapore

- Developed system software applications in Java and C++ for AMD's Ryzen / Navi based Accelerated Processing Units.
- Implemented test programs, chip characterization and debugging tools to support AMD's agile product development.
- Ensured that the performance and power management benchmarks of the APUs are conforming to AMD standards.

PsyFinance

March 2022 – June 2022

Software Engineer Intern

Singapore

- Shipped UI enhancements such as pagination and modals using ReactJS and TypeScript that benefited 5000 users.
- Optimized front-end performance through a centralized state management system, reducing loading times by 25%.
- Built a Node.js package with custom functional components for startups that want to utilize PsyFinance's option vaults.
- Integrated an analytics tool for monitoring site traffic and transactions to understand PsyFinance's customer behaviors.
- Developed a CI/CD pipeline to automate running of unit tests on pull requests to prevent errors from entering production.
- Contributed to the launch of V2 app and responded to user feedback by pushing ticket fixes and UI enhancements.

Bumblebee Autonomous Systems

Aug 2021 – March 2022

Robotics Software Engineer

Singapore

- Designed autonomous underwater and surface vehicles for research and participation in international competitions.
- Developed a simulation environment for DJI drone using Python packages in a Linux based Robot Operating System.
- Conducted weekly sea trials to evaluate software capabilities in operation that enabled team to attain second place.

Projects

Secand | MongoDB, ExpressJS, ReactJS, NodeJS, Redux, PayPal SDK

- E-commerce platform to sell second-hand items, with features such as cart, product search, checkout, and payment.

Traiflix | TypeScript, NextJS, TailwindCSS, Stripe SDK

- Trailer streaming website for movies and shows using the TMDB API with payment and user subscription features.

Quizot | Python, Telegram API, AWS

- Telegram bot that quizzes players on 101 trivia questions and tracks their progress using game points and rewards.

TesLah | Machine learning, Neural Networks, JavaScript

- A self-driving car simulation built by implementing driving mechanics, environment, sensors, and collision detection.

Imagify | ReactJS, JavaScript, HTML, CSS

- Engine that generates meme images from the ImgFlip API and allows users to type top and bottom text captions.

Technical Skills

Languages: TypeScript, JavaScript, Python, C, C++, HTML, CSS, Latex

Technologies/Frameworks: NodeJS, ReactJS, NextJS, TailwindCSS, MongoDB, ExpressJS, Redux, Recoil

Developer Tools: Git, Linux, Vercel, Heroku, Postman, AWS, ROS, Gazebo, Apache

Activities

NUS Faculty of Engineering

Aug 2021 – March 2022

Teaching Assistant

- Guided Y1 students in a 12-week robot design course which exposed them to C++ micro-controller programming.

Seeds of Good Program

Jan 2021 – Aug 2021

Coding Instructor

- Taught programming to 50 primary and secondary school students using interactive web games built using Scratch.

NUS Engineering Club

May 2021 – Aug 2021

Vice Project Director

- Led a team of 12 through the planning and execution of a 2-day orientation camp for over 200 incoming freshmen.