

Gowthaman Aravindan

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Education

National University of Singapore

Bachelor of Engineering, Major in Computer Science

Expected May 2024

GPA 4.75/5.0

Experience

Advanced Micro Devices (AMD)

Incoming Software Development Intern

July 2022

Singapore

PsyFinance

Software Engineer Intern

March 2022 – Present

Singapore

- Shipped enhancements such as pagination and modals using ReactJS and TypeScript that benefited over 5000 users.
- Optimized front-end performance through centralized state management, reducing page loading times by about 25%.
- Built a Node.JS package with custom functional components for start-ups that want to utilize PsyFinance's option vaults.
- Integrated an analytics tool for monitoring of site traffic and transactions to understand PsyFinance's customer behaviors.
- Added a CI/CD pipeline to automate running of unit tests on pull requests to prevent errors from entering production code.
- Contributed to the launch of V2 app and responded to user feedback by pushing daily ticket fixes and enhancements.
- Created a debugging tool that deserializes JSON data obtained from account keys into a tabulated format for better data visualization.

Bumblebee Autonomous Systems

Robotics Software Engineer

Aug 2021 – March 2022

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.

NUS RoboMasters

Robotics Software Engineer

May 2021 – Aug 2022

Singapore

- Built an autonomous sentry robot from ground-up based on an open-source design for the team's internal competition.
- Adapted the team's existing STM32 Microcontroller code in C++ and integrated it into the robot's hardware with RTOS.

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, Rest API

- Video streaming website to watch trailers of popular movies and shows, 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.

Imagify | ReactJS, JavaScript, HTML, CSS

- Engine that generates random meme images from a database and allows users to type top/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

Teaching Assistant

Aug 2021 – March 2022

- Guided 20 students in a 12-week robot design course which exposed them to Arduino micro-controller programming.

Seeds of Good Program

Coding Instructor

Jan 2021 – Aug 2021

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

NUS Engineering Club

Vice Project Director

May 2021 – Aug 2021

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