Ashwin **Gur**

COMPUTER SCIENCE · MECHATRONICS · UNIVERSITY OF SYDNEY

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Education

University of Sydney   *Sydney, AU*

BENG (HONS) IN MECHATRONICS AND BSC IN COMPUTER SCIENCE   *Feb. 2020 - Dec. 2024*

- Weighted Average Mark: 82.2% • Honours Class I • Dean's List of Excellence in Academic Performance • GS Caird Scholarship

Experience

Software Developer   *Sydney, AU*

THE UNIVERSITY OF SYDNEY - ARCHIVES AND RECORDS MANAGEMENT DEPARTMENT   *Apr. 2022 - Present*

- Rewrote critical C# backend applications using object-oriented design patterns and parallel processing to optimize running time by several hours and meet increasing reporting requirements.
- Developed and maintained Power BI dashboards with Power Query and DAX, used by various departments and teams across the university.
- Integrated client feedback to create insightful reports that increased the productivity of university operations.

Student Software Engineer   *Sydney, AU*

USYD ROCKETRY TEAM   *Feb. 2022 - Jun. 2022*

- Contributed to the development of a rocket modeling and simulation system for the Ironbark team, essential for the iterative design of the physical rocket.
- Created a custom graphing and visualization module using matplotlib, used during simulations.
- Frequently communicated with other student engineers to ensure module compatibility and project milestone completion.

Student Software Engineer   *Sydney, AU*

USYD CUAVA   *Oct. 2021 - Oct. 2022*

- Developed modules for the CubeSat operating system, CubeOS, including the propulsion system and how it communicates with other modules using UART.
- Self-taught Rust programming for low-level system architectures.

Android App Developer   *Sydney, AU*

COMPANY: BRIGHT OS   *Jul. 2021 - Oct 2021*

- Assisted new Front End interns in understanding the repositories.
- Communicated frequently with Front End and Back End teams to implement new features and fix bugs.
- Published updates to the Play Store and reviewed feedback to improve user experience.
- Maintained high work standards in the high-stress environment of a startup, prioritizing urgent tasks for stakeholders.

Projects

ashwingur.com   🔗 *Code*

PERSONAL WEBSITE • INCLUDES PORTFOLIO AND PERSONAL PROJECTS   *Jan. 2023 - Present*

- Self-taught Next.js and Tailwind CSS to develop a full-stack application showcasing my portfolio and various personal projects.
- Full integration with my API to create CRUD apps and Analytics.
- Implemented automated E2E testing using Playwright.
- Regularly add new features and projects to apply newly learned skills.

api.ashwingur   🔗 *Code*

PERSONAL WEBSITE BACKEND   *May. 2024 - Present*

- Manage an Ubuntu server hosted by Digital Ocean with a Docker container setup for applications.
- Use Caddy web server for HTTPS with Gunicorn as the WSGI HTTP server.
- Use Flask to run the server, providing authentication, rate limiting with Redis, API, and WebSocket interfaces.
- Utilize PostgreSQL for storage with TimescaleDB extension for efficiently querying large time-series data.

Skills

Languages   Python • Java • C# • Typescript • HTML/CSS • SQL • C • MatLab • Rust

Technical   Linux • Windows • React • Next.js • TailwindCSS • Flask • Power BI • Power Automate