

Lum Yi Ren Johannsen

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EDUCATION

National University of Singapore

Bachelor of Computing (Honours) in Computer Science

Singapore

Aug. 2023 – Present

- GPA: 4.0 / 5.0

Singapore Polytechnic

Diploma in Computer Engineering (Merit)

Singapore

April 2017 – May 2021

- GPA: 3.946 / 4.0
- CCA Grade: Gold

EXPERIENCE

Singapore Polytechnic Project Intern, Member

Singapore Polytechnic

Mar. 2020 – Aug. 2020

Singapore

- Implemented Ackerman steering formula using Python and integrating it with ROS for a self driving system
- Developed autonomous localization and navigation with waypoint-based navigation and obstacle detection
- Deployed a lane detection algorithm and designed a graphical user interface (GUI) dashboard for real-time monitoring and lane centering

PROJECTS

Finance Planner `finance-planner-delta.vercel.app` | *React, Vercel*

Jan. 2025 – Present

- Created a responsive and user-friendly web application for financial and milestones planning, enabling insurance agents to help clients track expenses, budget and goals efficiently.
- Implemented interactive financial visualizations using react front-end to enhance user experience.

Erel Personal Task Manager Bot | *Java, JavaFX*

Jan. 2025 – Mar. 2025

- Implemented natural language processing for user commands.
- Designed a JavaFX-based UI for an intuitive user experience.
- Integrated file-based persistence to store and retrieve tasks across sessions.
- Applied Object-Oriented Programming (OOP) principles for modular, maintainable code, following best practices.
- Conducted software testing using Junit, ensuring robustness and correctness of task management features.

TutorFirst | *React Native, Supabase, Git*

May 2024 – Aug. 2024

- Developed a mobile tuition booking applicaiton using React Native, providing students with a uesr-friendly interface to browse and book classes.
- Integrated Supabase back-end to manage 20+ user accounts, handle class scheduling and process bookings, enabling seamless real-time updates across all users.
- Implemented key features such as class search, booking confirmation, and real-time chat functionality, enhancing user engagement and interactivity.

Expense Tracker TeleBot `@tracking_expense_bot` | *Python, Mongodb, AWS EC2*

Dec. 2023 – Jan. 2024

- Created a Telegram bot using Node.js and MongoDB, enabling users to track daily expenses efficiently.
- Integrated bot with AWS EC2 for 24/7 availability, ensuring seamless performance and reliability.
- Set up GitHub web-hooks for automated deployments, improving development workflow.

TECHNICAL SKILLS

Languages: Java, Python, JavaScript, TypeScript, SQL (Postgres, MonogDB), HTML, CSS

Frameworks: React, React Native, JavaFX, Node.js, SupaBase, JUnit

Developer Tools: Git, GitHub Actions, VS Code, IntelliJ, AWS (EC2), Vercel

Databases: PostgreSQL, MongoDB, Supabase