

Mohana Selvakumar

Email: mohana_selvakumar@mymail.sutd.edu.sg Mobile: +65 97562640
LinkedIn: [linkedin.com/in/mohana-selvakumar](https://www.linkedin.com/in/mohana-selvakumar)

COMPUTER SCIENCE AND DESIGN, MINOR IN AI

Financial Technology and Data Analytics Specialisation

GPA 4.12

Singapore University of Technology and Design | KKH – SUTD Scholar

Passionate about **AI, ML, and user-centric design**, I specialise in developing intelligent solutions that optimise processes, enhance user experiences, and drive innovation. With hands-on experience in AI/ML-driven automation, UI/UX design, and frontend development, I'm a detail-oriented problem solver who enjoys tackling real-world challenges through data-driven insights and cutting-edge technologies.

WORK EXPERIENCES

Central Provident Fund Board

Aug 2023 - Dec 2023

UI/UX Intern

- Designed and iteratively refined **UI/UX elements**, including wireframes, user interfaces, and landing pages, using **Figma**, **responsive design principles**, and **user research**.
- Created compelling outreach materials to improve user engagement for CPF's digital services.

TVS Motor Company

May 2024 - Aug 2024

AI/ML Intern

- Conducted **literature reviews** and proposed an **AI/ML-driven** Automated Storage and Retrieval System (ASRS) for manufacturing plants to optimize warehouse efficiency, reduce space wastage, and enhance part quality.
- Researched** and **experimented** with AI models such as **LSTM**, **Genetic Algorithms**, and **ARIMA**, testing their application for real-time warehouse optimization.

ACADEMIC PROJECTS

Public Housing Price Prediction AI Project

Jan 2024 - Apr 2024

Developing the Solution

- Developed an **AI-powered** HDB price prediction model, following the **AI project lifecycle**.
- Implemented **Random Forest**, **Decision Trees**, and **Neural Networks** (scikit-learn), as well as **ARIMA** models (statsmodels) to improve prediction accuracy.
- Designed an interactive **Streamlit-based** web interface to visualize price predictions for user accessibility.

Software Development for a Smart Nation, collaboration with Singtel

Jan 2023 - Apr 2023

Designing UI + Frontend Development (Awarded Honourable Mention for Innovative Design)

- Led **UI/UX design** on **Figma** for a library booking mobile application and collaborated on frontend development (Android Studio), integrating real-time booking functionalities
- Awarded Honourable Mention for innovative design and practical application.

Web Application Development, collaboration with Ascenda Loyalty

May 2023 - Aug 2023

Frontend Development

- Frontend development building a web application interface using **Svelte-Kit**, **Tailwind CSS** and **DaisyUI**, ensuring a responsive and intuitive design for smooth user experience.
- Conducted **frontend testing** to identify and resolve performance bottlenecks.

Web Application Development, Capstone Project

Sep 2024 - Apr 2025

UI/UX Research + Frontend Development

- Designed a **multi-platform UI** on **Figma** for an energy systems optimization web application with 3 platforms: Asset Modeller, System Modeller and Data Visualisation.
- Developed the frontend using **React** and **Next.js**, ensuring seamless user experience and responsiveness.

TECHINICAL SKILLS

Programming and Development

Python, Java, JavaScript, HTML, XML, MySQL, React, Next.js, Svelte, Agile Software Development, Machine Learning, Software Testing, NLP, Android Studio, UIPath, AI

Design and Tools

Figma, Adobe Illustrator, Canva, Power BI, Microsoft Excel, PowerPoint, Visio, Balsamiq

EXTRACURRICULAR ACTIVITIES

Tamil Cultural Interest Group

May 2023 - Feb 2025

Co-Founder, EXCO - Secretary

- Co-founded an interest group to promote Tamil language, culture, and identity among Tamil students at SUTD.
- Organized weekly educational sessions and managed administrative tasks in collaboration with the EXCO.
- Collaborated with other clubs to organise and execute Deepavali Night, a large-scale annual event.
- Collaborated with other universities and represented SUTD for Pongal 2025 celebrations.

University Ambassador

Oct 2022 - May 2025

- Represented SUTD by conducting campus tours and sharing sessions for Early Matriculated students, NJC students, and visitors in the annual Open House.
- Effectively communicated SUTD's unique curriculum and culture, enhancing outreach and student engagement

Undergraduate Teaching Assistant

Jan 2023 - May 2023

- Provided academic support to Term 2 students, enhancing their comprehension of complex mathematical and engineering concepts.
- Graded homework assignments, offering detailed, constructive feedback to promote deeper learning and problem-solving skills.

INTERESTS

Sports (Table Tennis, Badminton), Photography