

# Sze Yan How

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## EDUCATION

### Georgia Institute of Technology

*M.S. in Computational Science and Engineering, GPA 4.00/4.00*

Atlanta, Georgia

*Aug. 2023 - May 2025*

### University of Michigan at Ann Arbor (Tishman Fellowship Recipient)

Ann Arbor, Michigan

*M.S. in Civil Engineering, GPA 3.89/4.00*

*Sep. 2022 - July 2023*

### University of Edinburgh (First Class Honors)

Edinburgh, United Kingdom

*BEng (Hons) Civil Engineering, GPA 4.00/4.00*

*Sep. 2018 - May. 2021*

## EXPERIENCE

University of Michigan Dynamic Project Management Lab | *Graduate Research Assistant*

September 2022 - May 2023

- Utilized discrete event simulation in Python to conduct in-depth analyses, unveiling that seamless human-robot synergy in masonry operations results in a 20% boost in productivity.
- Investigated and evaluated the potential of smart contract solutions, specifically using Solidity, for transparent and accountable data dissemination in construction compliance assessments.

Accenture Technology Malaysia | *Platform Experience Analyst*

August 2021 - August 2022

- Led the filtering and assessment of digital content, consistently achieving the highest performance ratings among global teams.
- Regularly pinpointed operational bottlenecks and observed nascent patterns, which enabled anticipatory escalations and augmented the precision of AI-driven machine learning algorithms.

## PROJECTS

Threads App | *Next.js, MongoDB, TailwindCSS, Shadcn Components, Webhooks, React Hook Form*

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- Actively constructing the Threads App, optimizing its performance using Next.js 13.4 with Server Side Rendering (SSR) and designing a compelling UI/UX via TailwindCSS and Shadcn components.
- Embedding a robust authentication framework with Clerk and ensuring data reliability through intricate MongoDB schemas, Zod validation, and React Hook Form.
- Laying the groundwork for seamless deployment with an advanced system architecture, aiming for real-time data synchronization using webhook integrations.

Interactive React Admin Dashboard | *Reactjs, Syncfusion React UI Components, CSS*

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- Streamlined business operations by building an admin dashboard and performance tracking system using React, MUI Core, and Express.js, successfully managing data for 300+ customers, and 100+ employees.
- Implemented interactive tools like email, chat box, text editors, and theme settings with React, Syncfusion, and Tailwind CSS, providing users with a fluid and effective workflow.
- Utilized Syncfusion charts UI for diverse data visualization, providing valuable insights and fostering growth.
- Simulated backend functionalities using JSON-server to establish a REST API with CRUD operations and developed 6 MongoDB models for smooth data handling using JavaScript, React, and Node.

Full Stack E-Commerce + Dashboard & CMS | *Next.js 13 App Router, React, Tailwind, Prisma, MySQL*

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- Implemented an e-commerce website using the MERN stack (MongoDB, Express, React, NodeJS) for a small business selling handmade snacks.
- Linked third-party APIs, including PayPal API to support credit/debit payment methods and AWS S3 for product image uploading. Then ease the payment process thus reducing cart abandonment. ease the payment process thus reducing cart abandonment.
- Featured with a user login/signup system using JWT authentication and allowing users to search, rate and review products.

## SKILLS

Programming Languages: C/C++, Java, JavaScript, TypeScript, HTML/CSS, SQL, Python, Swift, Kotlin  $\text{\LaTeX}$

Frameworks: React, NodeJS, Express, Django, AWS, Azure, GCP, Spring Boot, Github workflows(CI/CD)

Tools: Linux, Shell(Bash/Zsh), Git, MySQL, MongoDB, Unix, Vim