

# Heng Sheng Yao, Dan

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Portfolio website: <https://elzming.vercel.app>

## PROFESSIONAL SUMMARY

Computer Science undergraduate with an open-minded and adaptable approach to software development

## EDUCATION

### *Singapore Institute of Technology (SIT) / University of Glasgow (UOG)*

*Sep 2024 – Current*

- BSc (Hons) Computing Science
- Expected Graduation: Sep 2027

### *Nanyang Polytechnic (NYP)*

*Apr 2019 – Apr 2022*

- Diploma in Robotic & Mechatronic Engineering
- Awards: Director's List (AY20/21, AY21/22), Edusave Merit Bursary (2021, 2022), Edusave Cert of Academic Achievement (2021)

### *Institute of Technical Education (ITE)*

*Apr 2017 – Apr 2019*

- Higher Nitec in Mechatronics Engineering
- Awards: Merit Bursary (2018), Edusave Cert of Academic Achievement (2018)

## WORK EXPERIENCE

### *STEM TRAINER (Freelance) | Newton show*

*June 2024 – Current*

- Managed and taught students aged 4–11 by executing lesson plan that promotes technical proficiency and increased interest in STEM topics

### *Technical Operations (Intern) | SSMC*

*Mar 2021 – Sep 2021*

- Supported automation system deployment, configuration, and troubleshooting
- Assisted with post-deployment housekeeping to ensure smooth operations
- Maintained system information and updated deployment records, reducing weekly eRack pod errors by 15%

## PROJECTS

### *Software Quality Assurance Platform (On-going)*

*Sep 2024 – Current*

- A CI/CD DevSecOps platform for code quality validation and automated build, testing, security scanning, and deployment
- Implemented web interface to easily configure and track build pipelines

### *Flight Map Routing Web Application*

*Sep 2024 – Current*

- Built a web interface to compute and recommend flight routes between airports
- Ranked and compared routes based on distance, number of connections, and cost-effectiveness using various algorithms

### *Smart Waste Management System*

*Sep 2024 – Current*

- Developed an IoT-based waste management system with a real-time monitoring dashboard
- Integrated multiple sensors to track waste levels, temperature, humidity, and liquid spillage in real time

### *Community Animal Care & Reporting Web Application*

*Sep 2024 – Current*

- Developed a community reporting platform to enable quick submission of animal incident
- Built community forums to support discussion and information sharing about neighborhood animals
- Implemented a containerized microservices architecture for scalability and maintainability

## ***Game Market Analytics & Data Management Platform***

**Sep 2024 – Current**

- Developed a centralized video game data platform to support sales comparison, trend analysis, and planning
- Dashboard to compare game sales across platforms and regions
- Managed structured and unstructured data to support analytics and reporting

## **ACTIVITIES**

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### ***Singapore Institute of Technology (SIT)***

- Build for Impact Hackathon 2026 Participant
- SIT Breakers
  - Origins Interschool Participant (2025)
  - SBS Transit Performer (2025)
  - SITizen Day Performer (2025)
  - SITizen Welcome Wave Participant (2025)
- SIT Soul Extreme
  - SIT 10<sup>th</sup> anniversary performer (2024)

## **TECHNICAL SKILLS**

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### ***Languages***

- C, Java, Kotlin, Python, Rust, html, CSS, JavaScript

### ***Database***

- MongoDB, MySQL, PostgreSQL

### ***Software tools***

- Git, Docker, Postman, Jupyter Notebook, Cisco Packet Tracer, Putty

## **LANGUAGES**

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### ***Spoken***

- English, Chinese

### ***Written***

- English