

Genki Asahi

asahi79289@gmail.com
+44 7587 505564

<https://github.com/SequentialEntropy>
<https://www.linkedin.com/in/genkiasahi/>

EDUCATION

University of Exeter

BSc Computer Science with Industrial Experience

(Sep 2023 - Jun 2027)

Predicted first class including the following modules:

- Programming (Python) | 90%
- Object Oriented Programming (Java) | 84%
- Data Structures and Algorithms | 82%
- Discrete Mathematics | 82%
- Computational Mathematics | 81%

United World College of South East Asia (Dover) | Singapore

International Baccalaureate Bilingual Diploma (IB)

(Aug 2021 - May 2023)

38/45 total across 6 subjects (A*AA equivalent) including the following:

- Computer Science | Higher Level - 7/7
- Mathematics Analysis and Approaches | Higher Level - 6/7
- Physics | Higher Level - 6/7

International General Certificate of Secondary Education (GCSEs)

(Aug 2019 - Jun 2021)

A* to A across 8 subjects including the following:

- Cambridge International Mathematics | A*
- Co-ordinated Sciences (Double Award) | A*
- Computer Science | A

TECHNICAL SKILLS

Languages | Python, Javascript (NodeJS), C++, Java, Dart, Shell (Bash), SQL, HTML, CSS (SCSS), Markdown

Libraries & Frameworks | NumPy, Pandas, Matplotlib, React, Angular, Flutter, JUnit

Tools | Git/GitHub, Visual Studio Code, Linux Terminal

Concepts | REST APIs, Async/Await, Threading, Abstract Data Structures

TECHNICAL PROJECTS

E-Paper Display Frame | IoT Project - Python

(Sep 2024 - Oct 2024)

A picture frame that dynamically changes its picture each day with images found on the internet.

- Dithered images using the Pillow library and processed the image as bitmaps using NumPy and Pandas.

FabricSkyBoxes | Open Source Contribution - Java

(Mar 2021)

A Minecraft: Java Edition mod with over 1.1 million downloads used to render 3d backgrounds in-game.

- Communicated with the development team and maintainers of the project to identify issues.
- Fixed a critical logical error involving modulo arithmetic through a merged pull request on GitHub.

Question Bank Generator | IB Computer Science Project - Javascript

(Jun 2022 - Feb 2023)

A web app for my Physics teacher to mass-generate questions with step-by-step solutions from a template.

- Interviewed and communicated with the client to discuss design specifications and project timelines.
- Deployed an internal REST API to handle CRUD operations over the client-server architecture.
- Implemented binary trees to represent mathematical operations stored in each question template.
- Traverses the binary tree in infix order to generate questions with correctly-assigned random numbers.

Singapore Public Bus Arrival Times | IoT Project - Python

(Oct 2021 - Apr 2022)

A real-time display that shows the arrival times of public buses that take me to school.

- Queried the Singapore Land Transport Authority's API to gather live JSON data asynchronously.
- Deployed software on a Raspberry Pi through the Linux Terminal accessed remotely through SSH.
- Wired LCD and button hardware interfaces controlled using GPIO pins on the Raspberry Pi.
- Handled button inputs whilst waiting for and processing API queries by using async/await logic.

AWARDS AND COMMITMENTS

Language Officer | University of Exeter Japanese Society

(Sep 2024 - Present)

- Led language lessons for a class of 25 students of Beginner, Intermediate and Advanced skill levels.
- Created and presented lesson plans and PowerPoint materials for a participatory learning environment.
- Gathered and managed volunteers to assist during classes, ensuring smooth operations.
- Handled room bookings and event logistics to cater to the expected number of attendees.
- Collaborated with the Social Media and Publicity Officers to promote events via Instagram.

Gold Award | Singapore National Youth Achievement Award

(Aug 2021 - Jun 2023)

- Taught a class of 10 children as the Lead Student Teacher at Computer Coding for Juniors - UWCSEA.
- Planned in-person lessons and online tutorials to ensure effective communication to a younger audience.
- Used the Python Turtle library to engage with students for a visually interactive learning experience.
- Kept track of class progression, recorded feedback and reflected in a weekly diary.

YouthHacks 2019 Hackathon | Developer Space at Google Singapore

(Nov 2019)

- Achieved 2nd place, with an iOS app that scans food barcodes and keeps track of users' nutritional diet.

INTERESTS AND EXTRACURRICULARS

DIY Electronics | Recycling and Upcycling for the Environment

- Repurposed lithium batteries salvaged from disposed vapes found on the street.
- Soldered circuitry to retrofit rechargeable batteries into clocks, Nintendo Wii remotes and other devices.
- Converting devices to be rechargeable saved tens of single-use AA batteries from going to e-waste.

Trekking | 150 km / 93 mile Journey Around Singapore

- Organised and led a 5-day 150 km walking expedition with four friends around Singapore's perimeter.
- Coordinated logistics, mapped out routes, arranged rest points, and managed group safety and pacing.