

KEERTHI G KAARTHIK



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<https://github.com/keerthigkaarthik>

EDUCATION

NUS Computer Science

- 4.38/5 GPA (Honours Distinction)
 - Concurrently taking a 2nd major in statistics and a minor in French
 - SMU Finhack 2023 Hackathon Semi Finalist
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WORK EXPERIENCE

NUS, Research Assistant - Clustering and Reconstructing DNA strands for DNA storage (May - Aug 24, full time)

- Implemented and enhanced parallelised algorithms for clustering and reconstruction for DNA sequence recovery, achieving improvements in both speed and accuracy.
- Utilized advanced string matching algorithms to improve consensus finding and error correction in DNA data reconstruction.
- Conducted experiments using simulated DNA data, leading to significant reductions in error rates and improved reconstruction fidelity.
- Collaborated with a multidisciplinary team to refine and validate algorithmic approaches for DNA-based data storage systems.

Weave Digital, Software Developer (May - Aug 24, project basis)

- Worked at a digital services start-up to help clients design and implement websites for product information and user sign-up using React, Figma, Flask, and Django.
- Created an AI-powered chatbot widget for customer service FAQs, enhancing user interaction by allowing questions without phone numbers and enabling direct sign-ups through the bot.
- Developed tracking systems for chatbot conversations to support client analysis and follow-up, improving customer engagement and retention strategies.

NUS, Teaching Assistant (Jun - Jul 24, part time)

- Assisted in teaching a summer module on sustainability, inclusive city design, culture, and workplace communication to a class of 30 international high school students.
- Led field trips and conducted interactive in-class activities to enhance student engagement and learning.
- Facilitated cross-cultural communication among students from diverse backgrounds, including Saudi Arabia, China, and the USA.

Lionsbot, Intern (Feb - Jul 23, full time)

- Assisted R&D team with testing of new designs in design for manufacturing and learnt design software such as Solidworks and Figma
 - Collaborated with industrial engineers to design factory layouts, organize sub-assemblies, optimize production stations, and arrange storage areas and walkways to minimise collisions, reduce safety hazards, and enhance throughput and efficiency.
 - Focused on production targets, learning about product selection strategies for start-ups, where production cost and time sometimes outweighed product popularity.
 - Tracked working condition of over 200 cleaning robots at over 50 MOE schools and did deployment, diagnosis and repairs for 3 types of cleaning robots on site
 - Conducted training sessions with clients to teach them to use products.
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PROJECTS

Facility booking website

- Developed a facility booking website for my NS unit to help them track and schedule training facilities for other units under its command.
- Made backend with Django with a PostgreSQL database and deployed on Heroku.
- Taught colleges to redeploy on AWS after Heroku free tier ended to allow my unit to easily maintain it after I ORDED

Automatic duty planner

- Wrote a python script to automatically plan the duty schedule for my NS unit
- Reduced time taken and number of scheduling errors and ensured transparency

Comic recommendation website

- Passion project which was developed with django and implemented user auth, PostgreSQL database and deployed on railway
 - Users could search and add favourite comics to their profiles and receive content based recommendations
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COCURRICULAR ACTIVITIES

Leng Kee Community Center Indian Activity Executive Committee (2023 - Present)

- Attend monthly meetings to help organise and execute events to engage local community. Events include but are not limited to: Seniors festival for innovations in senior living, community support and future technology, Mothers day, Bowling with the visually impaired, etc

National Indian Activity Executive Youth Committee [Narpani Youth] (2024 - Present)

- After sometime helping at my local CC was invited by Narpani Youth to attend monthly meetings and help plan and execute youth oriented events on the national level

NUS Game Development (2023)

- Built a simple single level game where player could move, jump and fight enemy non player characters
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Skills: Javascript, React, Python, Django, Flask, PostgreSQL, Java, Figma, Excel