Dion Yi Chia

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Education

University of California, Berkeley, Berkeley, CA   *Aug 2025 – Present*
GLOBE Exchange Student
- Relevant modules: Efficient Algorithms and Intractable Problems, Feedback Control Systems, Optimization Models in Engineering, Computer Networks, Databases

Nanyang Technological University, Singapore   *Aug 2023 – July 2027*
BSc. in Computer Engineering, MSc. in Technology Management, Minor in Modern Languages, Expected Honors (Distinction)
- Renaissance Engineering Program (Premier Engineering Scholars' Programme in NTU), specialization in Computer Engineering
- Renaissance Engineering Program Scholarship (REPS) recipient
- Grade Point Average (GPA): 4.74/5.0

Work Experience

DSO National Laboratories, Singapore   *May 2025 – Aug 2025*
Software Engineer Intern
- Researched partitional, hierarchical, and density-based clustering algorithms. Benchmarked K-Means, Mean-Shift, DBSCAN, and HDBSCAN for performance and accuracy.
- Parallelized open-source clustering algorithms in an offline Linux environment on a HIP-based GPU system, achieving a 10× speedup while preserving accuracy.

Land Transport Authority, Singapore   *Jun 2024 – Jul 2024*
Artificial Intelligence Intern, Data Science Department
- Researched on 4 branches of deep learning namely, Computer Vision, Natural Language Processing, Generative AI and Reinforcement Learning.
- Created documentation to distil technical concepts for clarity and understandability for a diverse audience.

Cosmose, Singapore   *Feb 2023 – Apr 2023*
Business Development Intern, KaiKai
- Developed tools to automate processes such as prospecting and mailing for CRM processes using JavaScript, resulting in substantial enhancement of team productivity.
- Covered end-to-end sales cycle of B2B products in a fast-growing tech-start-up. Surpassed targets set and acquired more than 50 leads through sales pitches.

Extracurriculars

Blueprint, University of California, Berkeley / Ecovet Global   *Aug 2025 – Present*
Full-Stack Developer
- Developing a scalable web platform to digitalize tabletop exercises for multi-sector emergency preparedness, enabling real-time or async collaboration and scenario management. (*Ongoing*)

REACH, Nanyang Technological University   *Jan 2024 – Jul 2025*
President
- Led a team of 30 in engineering innovative solutions targeted at the disadvantaged and differently abled, including projects in various fields such as MedTech.

Projects

Visual-Field Testing Booth – A system utilising computer vision and a pan-tilt servo mechanism used to enhance traditional VF analysis. *Awarded a $15,000 grant by Tan Tock Seng Hospital for further development.*

Finder – Adaptive retrieval-augmented generation tool to aid students' learning built using LangChain, Ollama and Milvus.

Inflatacare – Smart inflation device that assists everyday movement (e.g. sitting upright) and helps prevent bedsores amongst in elderly or bedridden patients through automated pressure monitoring and load rebalancing.

Skills

Languages: Python, C, Java, React, HTML5, CSS, JavaScript, Typescript and Verilog
Frameworks: LangChain, Node.js, React.js, Next.js, FastAPI, Tailwind, PyQT6, Arduino
Developer Tools: Git, GitHub, Microsoft Azure, Vercel, Arduino Cloud