STEVEN-SHINE CHEN

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EDUCATION

Massachusetts Institute of Technology (MIT), Computer Science Exchange Student 2024-2025

MEng Computing, Imperial College London 2021-2024

- **Ranked 1st in cohort** for Best Overall Exam Performance
- 1st Year: **91% Average**, 2nd Year: **87% Average**, 3rd Year: **84% Average**

High School of Dundee - Scottish Advanced Higher (98% Avg), STEP 2 Grade 1, STEP 3 Grade 2 2015-2021

EXPERIENCE

Marshall Wace, Software Engineer Placement April 2024 - Aug 2024

- Developed an LLM evaluation system using **MLFlow** to benchmark LLM citations for RAG systems
- Created a hybrid keyword-vector-fuzzy search, surpassing original LLM citation performance with a smaller model
- Developed an automated prompt engineer which improves and generates prompts tailored to your task

Maven Securities, Software Engineer Intern June 2023 - Aug 2023

- Created an ingestion pipeline for XML data by parsing the XML using **Pydantic** into a **SQLModel** Postgres database
- Optimised database queries with indexes and benchmarked the program using **cProfile** in **Python**

Imperial College, Personal Maths Tutor & Undergraduate Teaching Assistant Oct 2022 - Mar 2024

- Taught small group discrete maths, logic and algorithms tutorial sessions for first-year university students
- Helped second-year university students implement Pintos, an operating system, in **C** and a compiler

Imperial College, Undergraduate Researcher Jul 2022 - Oct 2022

- Developed a neural ODE-based trajectory parameterization for RGBD SLAM using **PyTorch**
- Implemented the RGB loss and neural ODE, adapted to work with a convolutional neural network

DoubleJGames, Lead Game Designer Dec 2014 - Jul 2021

- Designed the Metaverse event for 'Dropblox', featured on the iOS app store front page, resulting in 12m+ plays
- In a team of 3, led the design of the Innovation Award nominated game 'Game Dev Life' which sold 300k+ copies

PROJECTS

Self-Driving Robot Car Jan 2024 - Mar 2024

- Created a self-driving robot which used Monte Carlo Localisation and a sonar sensor to navigate a room
- 1st in Imperial Robotics Racing Competition using a camera sensor and Dynamic Window Approach

Automated Trading Bot Nov 2023

- Implemented arbitrage and market-making strategies for dual-listed stocks with delta hedging on a simulated exchange
- 1st in Optiver Trading Academy & 1st in Jane Street ETC Trading Challenge

WACC Compiler (A While-like Language) Jan 2023 - Mar 2023

- Compiler with modular parsing, semantic checking, function overloading and constant propagation using **Haskell**

Pintos Operating System Oct 2022 - Dec 2022

- Supports thread scheduling, loading multiple user programs and virtual memory in a synchronised manner using **C**

ACHIEVEMENTS

- 2nd in $30,000 OBSS CodeMaster Programming Contest Mar 2024
- Represented Imperial twice at the ICPC Northwestern European Regional Contest (NWERC) Nov 2022, Nov 2023
- 1st (two times) in the G-Research OS Scheduling & Auction Bidding Challenges Mar 2023, Nov 2023
- 13th at the ICPC UK and Ireland Programming Contest 2023 (UKIEPC) Oct 2023
- IC Hack 23 Multi-Award Winning location-based geo-tag game (Europe's largest student hackathon) Feb 2023
- 1st at UKMT Team Maths Challenge Regional Finals & National Finals Qualification Feb 2020
- 2nd out of 5000+ teams in UK Student Investor Challenge Jan 2019

Languages Python, C++, C#, C, Java, Rust, Kotlin, Javascript, Haskell