

Size Yoong Low

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EDUCATION

Imperial College London

London, United Kingdom

Bachelor of Engineering in Computing

Sep. 2025 – June 2028

- Dean's List (Year 1): Top 10% in cohort of 220
- First-Class Honours (Year 1): Achieved 88.47% with high First-Class grades in all eight modules, including Computing Practical 1 (93%), Graphs and Algorithms (92%), Discrete Mathematics, Logic, and Reasoning (92%)

EXPERIENCE

Maxis (*Bursa Malaysia 6012*)

Kuala Lumpur, Malaysia

AI Automation Software Engineering Intern

July 2026 – Sep. 2026

- Revamped an in-house agent orchestrator and observability dashboard to collect token-usage telemetry, give business stakeholders self-service real-time analytics, and automate AWS Step Functions creation and deployment
- Managed production deployments of serverless container apps, AWS Lambda functions, and database migrations
- Redesigned the database, REST API, and admin console of an internal LLM reverse proxy to improve cost-accounting accuracy by capturing nuances like KV caching and enable routing to the lowest-cost provider

Boston Consulting Group (*BCG*)

Kuala Lumpur, Malaysia

Case Team Assistant

March 2025 – June 2025

- Provided our client with clarity on group-wide digital spending by building an Excel dashboard to consolidate siloed data sources and visualise key metrics tailored to both operational staff and senior management

PROJECTS

Canary | *Agentic Jupyter Notebook for building interactive analyst reports*

June 2026 – Present

- Assembled a bespoke Terraform DevOps workflow to automate the lifecycle of isolated AWS and Cloudflare development environments provisioned on demand, and promote artifacts to production without rebuilding
- Developed a modular Polars data pipeline with full flexibility to perform any logical composition of columnar data transformations while deduplicating lazy data fetches by planning executions as directed acyclic dependency graphs
- Created an AI agent with LangGraph to reliably translate users' questions into financial terminal function calls
- Enabled users to save and share reports with robust role-based access controls enforced by server-side access token authorisation checks against privileges that admins and content owners can adjust instantly with full audit history
- Minimised network bandwidth required for client-server syncs by maintaining client state in TanStack Query caches

3D Cellular Automata Simulation Engine | *GPU acceleration, voxel optimisations*

May 2026 – June 2026

- Led my team of four to develop a C simulator for real-world systems such as organism growth and galaxy filaments
- Built an OpenGL graphics pipeline that renders a million voxels at over 100 FPS by using compute shaders to perform stream reduction optimisations including frustum and occlusion culling natively in GPU memory
- Boosted the frame rate of simulations with transparent effects four- to tenfold by refining culling algorithms to target individual cube faces and replacing the log-linear bitonic merge sort that prevented Z-fighting with a constant-time Weighted Blended Order-Independent Transparency algorithm
- Presented our work to engineers from Arm and fielded audience questions as finalists for Best First-Year Project

RoboCup Small Size League | *Real-time digital signal processing for autonomous robots*

Oct. 2025 – June 2026

- Software engineer with Imperial's First Order Robotics team that competed for a spot at the World Finals
- Improved motion-planning accuracy by 35% by implementing multivariate Kalman filters with NumPy to minimise noise in position data feeds from overhead cameras and predict missing values
- Enabled intuitive and convenient simulation-result benchmarking and parameter tuning by building a dashboard of maps and charts in Jupyter Notebook with Matplotlib and Pandas
- Equipped our simulator to stress test software under real-world conditions like random noise and missing data

SKILLS AND TECHNOLOGIES

Programming: C, Kotlin, Java, Python, TypeScript, Haskell

Infrastructure and DevOps: AWS, Terraform, Docker, Cloudflare Workers, GitHub Actions, Bash, PowerShell

Full-stack web development: FastAPI, Express.js, Flask, LangGraph, Okta Auth0, React, React Router, TanStack

Databases and analytics: PostgreSQL, MySQL, SQLite, Polars, Pandas, NumPy, Matplotlib, Apache ECharts, Excel

Native languages: Mandarin Chinese, Cantonese, Bahasa Melayu