

George Decesare

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EDUCATION

Imperial College London

MEng in **Computing** - First class average

London, UK

Sep. 2023 – Jun. 2027

TECHNICAL SKILLS

Languages: Python, Java, Kotlin, C/C++, TypeScript, HTML/CSS, Haskell, SQL, Scala, Dart

Developer Tools: Git, Docker, VSCode, Visual Studio, IntelliJ, (Neo)Vim, gdb, GitLab Runners (CI/CD), bash

Libraries/Frameworks: Nuxt, Ghost, Next.js, Tailwind, Flutter, Serverpod, PostgreSQL, PyTorch, NumPy

EXPERIENCE

Webmaster

Felix (Imperial's Student Newspaper)

- Maintaining Ghost website with HandlebarsJS templating
- Developing image copyright infringement detection

Oct. 2025 – Present

London, UK

Full Stack Developer

DocSoc ICHack 2025

- ICHack is the largest student-run hackathon in Europe
- Typescript, Nuxt for frontend, Hono for backend, PostgreSQL
- Utilised Docker to containerise the API/DB servers

Oct. 2024 – Feb. 2024

London, UK

Undergraduate Teaching Assistant

Imperial College London

- Competitively selected from cohort based on programming competence in both 2nd and 3rd years
- Helping teach Haskell, Kotlin, C, Operating System lab, Compiler lab (Scala)

Sep. 2024 – Present

London, UK

PROJECTS

WACC Language Compiler | *Scala, x-86 assembly, GitLab CI/CD*

Jan. 2025 – Mar. 2025

- Developed a compiler from scratch for the educational WACC language
- Used the **parsley** parser combinator library for the frontend
- Backend code generation to x86-64 assembly, assembled with **gas**
- Features included constant folding and propagation, graph colouring for register allocation, peephole optimisations

Operating System Kernel Development | *C, Make, Assembly, gcc, gdb, valgrind, git*

Oct. 2024 – Dec. 2024

- Developed an existing kernel for the *PintOS* operating system
- Added features like concurrent user processes, virtual memory, process scheduling
- Honed existing experience with low-level C programming and bare-bones hardware concepts
- Worked in a group of 4, using **git** extensively for version control and collaboration

Android App for Scout Leaders' Finance | *Flutter, Serverpod, GitHub Actions, PSQL*

May 2025 – Jun. 2025

- Backend server with DB persistence and real-time updates/synchronisation
- Intense agile cycles, deployed from iteration 0; strong teamwork skills to orchestrate feature development
- Constant user feedback to influence the next iteration, with documentation and a presentation to evidence this
- Docker containers for backend server and database server, with automated deployment

VOLUNTEERING

Reading Mentor | *Teaching, Leading skills*

Sep. 2021 – Jun. 2023

- Provided individual reading tuition to a class of Year 3 children, honing explanatory and authoritative skills
- Developed independence in a professional setting

EXTRACURRICULARS

- Grade 8 in Violin and piano; participation in school and amateur orchestras
- Gold Award in UKMT Senior Mathematics Challenge and Best in School Award
- Silver Duke of Edinburgh Award