Luke Fisk-Lennon

CS Student & Casual Academic at UNSW

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Education

University of New South Wales - BSc (Computer Science), Distinction Grade

Feb 2020 - Dec 2023

SYNCS Hackathon 2021, Finalist & Best Pitch (links: <u>Devpost</u>, <u>source</u>)

Experience

Canva – Software Engineering Intern (Frontend)

Nov 2022 - Feb 2023

- Implemented a new UI for personalised team member suggestions, leading to a projected uplift of 480K+ team invites sent annually
- Developed a generalised list animator component using the FLIP technique, enabling animations for browser-computed layout shifts
- The feature was fully rolled out to production after being tested behind a feature flag

University of New South Wales - Casual Academic

Sep 2020 - Present

- Tutor for a total of 250+ students; explaining technical concepts and marking lab work
- Software Engineering Fundamentals (COMP1531): teaching object-oriented programming, Python, Git, property-based testing, static code analysis, data processing, HTTP, and authentication
- Computer Systems Fundamentals (COMP1521): teaching C, Assembly, bitwise operations, integer and float representation, memory layout, filesystems, concurrency, and other OS concepts

Tanksmith.io (links: <u>deployed on web</u>, <u>deployed on mobile</u>, <u>source & more details</u>)
Creator & Developer

May 2018 - Present

- A real-time multiplayer web game with 2+ million total players and 100+ thousand app downloads
- Using JavaScript, HTML5 Canvas, CSS, C++, WebSocket networking, and Box2D physics
- Binary serialisation and motion interpolation to reduce network bandwidth usage by around 75%
- Load balancer running in Node.js with IP geolocation, and tools to support automated deployment

Extracurricular

Notangles Timetabling App (UNSW CSESoc) (links: <u>deployed on web</u>, <u>source</u>)

Apr 2020 – Feb 2022

Team Lead & Member

- Led a team of 8 to create Notangles, a timetabling tool used by over 5 thousand UNSW students
- Taught React & TypeScript/JavaScript to the team via workshops and pair programming
- Engineered a performant drag-and-drop DOM implementation which interfaces with the React layer

Structs.sh Algorithm Visualiser (UNSW CSESoc) - Team Lead

Nov 2022 - Present

- Working with a team of 2 co-leads and 11 team members on a new iteration of the project
- An app for compiling, debugging, and visualising arbitrary C code in real-time
- Designing the architecture, including a programmatic interface for GDB in Python, and a D3.js force-directed graph visualiser with rasterisation support for exporting GIFs

UNSW Queer Students in STEM (links: <u>deployed on web</u>, <u>source</u>)

Nov 2021 - Nov 2022

Vice President of Marketing

- Worked in a team of 9 executives to provide a community for LGBTQIA+ students in STEM
- Involved in website development, graphic design, merch orders, and social media marketing

UNSW FIRST Competitive Robotics Team – Software Mentor

2017 - 2020

- Outreach programs where I taught robotics and programming to high school students
- Developed a tool for remote-controlling ESP8266-equipped robots with a web interface via Wi-Fi
- Worked with OpenCV to enable vision processing and autonomous control for a large-scale robot