Liam Davies

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Career Objective

As a young engineer, I aim to build strong connections with companies through my passionate approach to electronic engineering. I have a extensive background in cross-disciplinary project development and can adapt to a wide variety of engineering challenges. I can provide value to an Engineering organisation through my consistent application of communication, teamwork and leadership skills.

Education

University of Technology Sydney - Bachelor of Electronic Engineering & Diploma of Professional Engineering Practice — **Jan 2021 - Feb 2026 (Expected)**

- **WAM 85.07**
- 2023 Dean's List Engineering
- 2022 Dean's List Engineering
- **Delft University of Technology, The Netherlands** - Electrical Sustainable Energy Systems (Exchange Minor 2023/24) – WAM 84.50
- **Léonard de Vinci Graduate School of Engineering, France** - PARIS Winter School Programme 2024 - High Distinction

NSW High School Certificate - Gosford High School — **Jan 2015 - Dec 2020**

- **ATAR 97.50**
- NESA All-Rounders Award
- Australian Defence Force Future Innovators Award

Experience

Software Engineer - Defence Australia — **March 2025 - Present**

- Due to security reasons, further details can be provided upon request.

Software/Electrical Engineer - DoFilm! Lab Darlinghurst — **Dec 2024 - Present**

- Designing, assembling and testing a custom liquid mixer for photographic chemistry. Required custom SMD PCB, C/C++ Firmware and rapid prototyping.
- Implementing a full-stack AWS web application for a custom Point-of-Sale system and digital asset delivery.

FPGA Design Engineer (Intern) - Arista Networks Sydney — **June 2024 - Nov 2024**

- Designs, develops and maintains FPGA designs in VHDL for high-performance network equipment.
- Works with Arista MetaWatch development team to review and approve FPGA designs and team-wide standards.
- Developed a 10G Port Mirroring FPGA feature for a large customer. Included full hardware-based port filtering, multicore streaming, rate-limiting and driver support.
- Conducts 10/100G testing and calibration routines for extremely low latency HFT switches (<100ns).

Electronics Lab Tutor / Lead Tutor - University of Technology Sydney — **2022 - Present**

- Teaches, mentors, and assesses electronics students as casual academic staff.
- Lead tutor for various Circuit Lab classes. Requires presentation and public speaking communication to large classes of up to 60 students at once.
- Communicates with other lab tutors, subject coordinators, and full-time university staff to help intuitively explain engineering concepts.

- Supervises and coordinates lab safety/procedures.

Technical Staff Writer/Engineer - DIYODE Magazine   **Aug 2019 - March 2024**
- Contributed over 60 high-quality articles over five years as a regular staff writer to DIYODE, an Australia-wide magazine for DIY electronics projects.
- Projects have been featured on media sites such as Tom's Hardware, contributing to more than 75,000 followers on Instagram alone.
- Works frequently from home and in office with other staff including photography and creative team.
- Collaborates directly with staff to design, build, test and write about innovative electronic projects.

Content Writer/Editor - Limeworks Australia   **June 2022 - Dec 2022**
- Temporary position at marketing agency Limeworks Australia, a full-service business split with DIYODE Magazine.
- Provided technical expertise in Jaycar Australia's boardroom with marketing executives as part of a large-scale 3D printing promotional campaign.
- Wrote video scripts for more than 15 videos provided for Jaycar Australia. Assisted with video production, helped coordinate on-set filming and configured products sent by clients.
- Provide technical and programming support for Limeworks clients, including app development and catalogue photography.

Computer Consultant/Technician - LD Computer Consulting   **June 2018 - Present**
- Founded business in early 2018, gained various clients and assisted small businesses in Umina Beach.
- Manages client appointments, phone enquiries, invoices, and general financial records.
- Advises and meets the needs of a diverse range of customers.
- Recommendations from local businesses such as Peninsula Office Supplies, who refers customers to LD Computer Consulting.

Technical Skills

Languages: C++, C, C#, Python, Java, JavaScript, VHDL

Software: Visual Studio, VSCode, Git, Bash, Vim, Altium Designer, AMD Xilinx, Jira, Bitbucket, Bamboo, Autodesk Fusion 360, Premiere Pro, After Effects, Photoshop, Eclipse, Illustrator, Unity Engine, Microsoft Suite

Hardware: Embedded Systems, Computer/Server Equipment, Low-level Electronics/Microcontrollers, FPGA Hardware, Internet of Things, Electronic Testing Equipment, Workshop Equipment, Diagnostic Equipment

Core Skills

- **Technical Problem Solving** – Several years working with electronics equipment has taught me an extensive repertoire of repair strategies and a skill for quickly diagnosing and repairing a large variety of devices. I also greatly enjoy reverse engineering and ethical hacking of consumer devices.

- **Communication Skills** - Fulfilling stakeholder needs as a technical staff writer at DIYODE Magazine and Lead Tutor at UTS has substantially developed my communication skills. I am confident in distilling complex concepts into layman's terms, and writing concise yet sophisticated text pieces.

- **Software Experience** – I am comfortable with using a wide variety of software needed for project creation, curation and version control. Over 10 years of experience with ubiquitous software such as Git, the Adobe Suite and programming IDEs.

- **Cross-disciplinary Learning** - Consistently learning and applying new skills. I am a very keen learner - I seek to know deep answers of "Why" and "How" in addition to just the "What". I have gained confidence in a notable array of technical skills for this reason, sparking a genuine passion and real interest in my field.

Personal Interests

IoT Electronics and Design – Home workshop with electronic testing equipment and 3D printers.

Deep Sky Astrophotography – Narrowband space photography with specialised telescope equipment.

Digital & Film Photography – Freelance/hobbyist photography with Canon cameras and accessories.

Simulation Racing – Simulation racing system with custom-built circuit boards and dashboard.

Extra-Curricular Activities

UTS Photography Society - Treasurer **2022-2024**
Financial management and executive position in UTS's largest photography group.

UTS Astronomy Society - President / Vice President **2022-2024**
Organises student astronomy events for over 60 concurrent members, and frequently collaborates with student executive teams across the University of Technology Sydney.

International Science and Engineering Fair 3rd Place, Engineering Mechanics **2021**

Young Scientist Competition 2nd Place Innovation and Engineering **2020**

National Computer Science Summer School - University of Sydney **2019, 2020**

Referees

Available on request.