

Andrew Haigh

hello@nelf.in Auckland, New Zealand

I am a strong generalist software engineer with a passion for excellence, but a pragmatic attitude to getting things done. I am variously experienced in web, distributed systems, low-latency networking, lightweight GUI, and bare-metal embedded programming. Since 2022 I have been based out of Auckland, New Zealand. From 2014 through 2021, I worked as a software engineer in Sydney, Australia. I've taken side-gigs and short-term contracts in areas such as *full-stack website design*, but also things like *interactive media installations* and *horticultural field-work*. I maintain *open-source software* and I contribute to open-source projects.

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Senior Software Engineer
Nov. 2021–present
Rocket Lab

Streamlining development, qualification, and production at a growing aerospace manufacturing company. Supported an extensive collection of bespoke Python and C++ software. Wrote new test software for spacecraft modems, servos, BMS boards, AFTUs. Full test suite for running drivecycles on inverters, motors, and actuators, including closed loop position control; supporting a 3+ year campaign from initial design to scaled production of a 45kN EMA. Minor contributions to flight software on the Electron and Neutron launch vehicles. Custom firmware for a magnetic field mapping probe for electric propulsion manufacturing. Expanded more into system-level design: planning, purchasing, installation, harness design & manufacture.

Senior Research Officer
Apr. 2018–Nov. 2021
UNSW Art & Design

Realising the vision of the National Facility for Human-Robot Interaction Research, a multi-institutional purpose-built research and testing facility for enabling the study of how people interact with technology and robots. A wide array of distributed Python and C++ processes variously managing off-the-shelf hardware and sensors and running real-time analysis and AI detection and classification.

Backend Developer
Nov. 2016–Jun. 2017
Hopfit

Nights and weekends at a Sydney-based startup for helping gyms manage class attendance and gymgoers managing memberships and personal training sessions. Writing Python AWS Lambda functions and a Postgres+PostGIS data store.

Developer
Jan. 2016–Mar. 2018
Optiver

Low-latency trading and market connectivity applications in C++ for the Tokyo Stock Exchange team. Accounting and reconciliation systems and software in C# for the Middle Office team. Some training in FPGA engineering for the Hardware team.

Software Engineer
Jul. 2014–Dec. 2015
Freelancer.com

Maintaining the original PHP payments stack, then a three-person squad who built a green-field payment service and saw it through PCI A-EP compliance. Later part of the team building the new Escrow.com following its acquisition.

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Feb. 2010–Jul. 2014
Canberra, Australia

Bachelor of Computer Science (Honours)
Australian National University

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Extensive experience
Familiarity

Debian and derivatives. Python, C, Rust, bash, SQL
VxWorks 6.9, CentOS, Windows Server. C++, Go, kotlin, R, Ada/SPARK, VHDL etc.

Referees available upon request.