

EDUCATION

Bachelor of Engineering (Honours), Mechanical Engineering | UNSW Sydney

2025 - 2028 (expected)

SACE | Pedare Christian College, Golden Grove SA | ATAR: 97.05

2024

TECHNICAL SKILLS

CAD and mechanical design: SolidWorks, Fusion 360; drone airframes, competition robots, antenna mounts and brackets

Programming: C++ for embedded and competition robotics; Python for automation, data analysis and trading APIs; MATLAB; TypeScript

Mechatronics and embedded: IMUs, encoders, colour and environmental sensors; flight controllers; pneumatics; Raspberry Pi and ADC acquisition

EXPERIENCE

Co-Founder | CentralPass

2026 - Present

- Co-founded CentralPass and built its proprietary direct-ordering and operations platform over several months, so venues take orders and payments on their own site instead of through marketplace apps such as Uber Eats; first venue live at Caffè Primo Firle.

Co-Founder and CFO | Project Umbrella Labs, UNSW

2025 - Present

- Co-founded a student-led research and development lab running practical engineering projects across autonomous UAVs, neural interfaces and agricultural monitoring.

VEX Robotics Mentor (Casual) | Barker College, Hornsby NSW

2026 - Present

- Coach VEX IQ teams through design, build and programming cycles using national-championship VRC competition experience.

Mechanical Lead | BlueSat UNSW CubeSat Program

Feb - Dec 2025

- Led mechanical design of the ground-station antenna pointing mounts and bracketry, coordinating interfaces across electrical, software and mechanical subteams.
- Handed the mechanical package to the team while the ground station remained in development.

Front of House | Caffè Primo, Munno Para SA

Dec 2021 - Jan 2025

- Handled orders, payments and bar service in a high-volume hospitality environment.

SELECTED PROJECTS

CentralPass hospitality platform | First venue live in production

2026 - Present

- Designed, wrote and deployed the full stack: React storefronts, a Node and Express API on PostgreSQL, Stripe payments confirmed by webhook, a Socket.io live staff queue, an owner portal, per-venue isolated infrastructure and a receipt-printer bridge.

ADA2M autonomous agricultural drone | Project Umbrella Labs, team of two

2025 - Present

- Designed a custom carbon-fibre airframe around a SpeedyBee F405 flight controller, TBS Crossfire link, Jetson Nano and environmental sensor payload; currently in flight testing.

Automated day-trading platform | Personal project

2025 - Present

- Building a modular Python system on the Interactive Brokers API with backtesting, position sizing, stop-loss logic and drawdown limits; no live performance claim.

LEADERSHIP AND SERVICE

Captain and Lead Programmer | VEX Robotics Team 41103A

2018 - 2024

- Led a seven-person team to back-to-back Australian National Championships, two World Championship qualifications and the 2023-24 season World Championship Sportsmanship Award in Dallas.
- Wrote autonomous and driver-control C++ using IMU, colour-sensor and encoder data; designed pneumatic intake, scoring and elevation mechanisms.

Volunteer | Young Space Explorers NSW, 76th International Astronautical Congress, Sydney

Sep - Oct 2025

- Supported the NSW Department of Education program at IAC 2025, including a CubeSat assembly and weather balloon workshop with Robinson Aerospace Systems.

Volunteer | Little Sisters of the Poor and Order of Malta outreach

2024 - Present

- Make weekly maintenance and companionship visits with elderly residents and distribute essential supplies through organised Sydney street outreach.

RECOGNITION

VEX World Championship Sportsmanship Award, 2023-24 season (awarded at 2024 Worlds)

Australian Defence Force Future Innovators Award (2024)

Tournament Excellence, Australian National VEX Championship (2023)