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Summary

I am an AGGP Machine Learning Software Engineer at Airbus, and a graduate of a Bachelor of Mechanical and Aerospace Engineering (Honours) with a Bachelor of Mathematical and Computer Sciences (Computer Science Major).

I think of myself as being highly diligent and organised regarding my work and study, yet also fun and easy-going when working in teams or in social settings.

My dream is to pursue a career at the forefront of the aerospace engineering and autonomy fields by contributing to the development of revolutionary design and technology.

Experience

Machine Learning Software Engineer

Airbus

Sep 2023 - Present (6 months)

Technical Network Committee Member

Institution of Engineering and Technology (IET)

Jan 2023 - Present (1 year 2 months)

Supporting the growth of the IET's Aerospace Technical Network which aims to bring together experts from aerospace-related fields and facilitate discussions about recent industry developments or collaborative ventures between those attending.

Authoring aerospace articles for publishing on IET's EngX platform.

Associate Software Engineer

Lockheed Martin

Feb 2023 - Aug 2023 (7 months)

Full stack web application development:

- Angular, HTML, CSS, TypeScript/JavaScript
- WebSocket
- Python, Node.js
- DevSecOps

Exhibited at 2023's Science Alive! to showcase the possibilities that STEM fields hold for aspiring students.

STEM Cadet

Defence Science and Technology Group (DSTG)

Mar 2021 - Feb 2023 (2 years)

In conjunction with my Honours project for a Bachelor of Engineering (Mechanical and Aerospace), Unmanned Aerial Vehicle Physical Homing Relay System for Internet of Military Things Synergy (UAV PHORESIS). This Honours project involved the build of an augmented Tarot T810 hexacopter to allow Internet of Things (IoT) devices to be picked-up and dropped off. This technology aids in creating self-healing mesh networks of sensors for rapidly-changing physical spaces. The applications of this technology include, but are not limited to, bushfire monitoring, open-pit mine air sampling, and delivery of medical supplies.



Young Professional Committee Member and University Representative

IET South Australia & Northern Territory Local Network

Feb 2021 - Jan 2023 (2 years)

Representing the IET Adelaide University On Campus (AUOC) amongst the wider IET communities of South Australia and the Northern Territory.

Liaising with the South Australia and North Territory committee to discuss the performance of the IET AUOC, areas of collaboration, and methods to boost membership intake by hosting industry nights and attending careers fairs.



President

IET Adelaide University On Campus

Nov 2021 - Dec 2022 (1 year 2 months)

Strategically planning the expected path of the Club in accordance with the Club's values, goals, and the suggestions of other Committee members. Putting people first.



Adept Rocketry Division Technical Team: Recovery

Adept

Mar 2021 - Nov 2021 (9 months)

Ensuring the safe and controlled descent and landing of the rocket once it has achieved its apogee. After this, locating and collecting the rocket in a timely manner such that it could possibly be re-launched within 24 hours.



Founder and Secretary

IET Adelaide University On Campus

Dec 2020 - Nov 2021 (1 year)

Ensuring that the club operates efficiently and ethically whilst supporting the smooth operation of the management committee. My roles include:

- Liaising with the President and Vice-President to organise committee meetings;
- Communicating with all committee members to plan agenda items;
- Creating and filing meeting minutes to record discussions, actions, results and future goals;
- Keeping an up-to-date record of important contact details for the committee and for specific events (e.g. safety officers and volunteers).



Summer Intern

Defence Science and Technology Group (DSTG)

Dec 2020 - Feb 2021 (3 months)

Undergraduate Research Assistant

University of Adelaide

Jul 2020 - Oct 2020 (4 months)

Researching methods to minimise wind loads on heliostat arrays. Performing experiments on scaled heliostats of various sizes at Thebarton Wind Tunnel. Learning about academic research paradigms and effective experimental methods.

Sales Assistant & E-Commerce Assistant

Glynde Mitre 10

Aug 2016 - Feb 2020 (3 years 7 months)

Identifying and uploading items to the store's online product catalogue. Safely transport new stock to the shop floor. Photographing, pricing and describing products, then adding them to the online store. Designing and publishing specials and promotions. Managing cash, EFTPOS, and account payments. Correctly taking orders and managing refunds. Provide advice for garden-related questions. Assisting customers in transporting heavy or large products to their vehicles.



Field Hockey Coach

Saint Ignatius' College, Adelaide

2018 - Mar 2019 (1 year)

Communicated with sports staff, parents, and players to organise teams appropriately for competition matches. Transferred my knowledge of field hockey to junior players. Dynamically adapted my teaching techniques to give player-specific advice.

Work Experience Student

Petro-King

Jan 2015 - Feb 2015 (2 months)

Prioritising, sorting, and replying to internal emails regarding upcoming events/meetings. Searching the intranet and email inbox for upcoming meetings/events/conferences and organising a simple schedule without clashes. Learning about oilfield technology and searching for profitable oil deposits.

Education

EPFL (École polytechnique fédérale de Lausanne)

Space Mission Design and Operations (EE585x)

May 2023 - Jul 2023

Claude Nicollier, one of the first ESA astronauts, builds on university level physics and mechanics to introduce and illustrate orbital dynamics as they are applied in the design of space missions.

- Fundamental laws of mechanics and orbital mechanics
- Orbital maneuvers
- Types of space missions and their objectives
- Space environment
- General concepts of space vehicle architecture

- Propulsion
- Attitude determination and control
- Onboard systems
- Risk management and reliability
- Key design elements for successful missions, in particular related to human spaceflight



University of Adelaide

Bachelor of Engineering - BE (Honours), Mechanical & Aerospace Engineering
2018 - 2022



University of Adelaide

Bachelor of Mathematical & Computer Sciences - BMa&CompSc (Honours),
Mathematical
2018 - 2022



University of South Australia

Course (2-month), Astrophysics

May 2023 - Jun 2023

- Astronomy aided by the Adelaide Planetarium's 8 metre dome.
- Observational and theoretical astrophysics
- Stellar evolution, black holes, Einstein's Relativity, particle physics.



University of Southampton

Mechanical & Aerospace Engineering

2019 - 2020

Exchange Program



University of Southampton

Mathematical & Computer Science

2019 - 2020

Exchange Program

Licenses & Certifications



Student Member - Engineers Australia



General Member - Institution of Engineering and Technology (IET)



Cybersecurity Foundations - LinkedIn



Excel Essential Training (Office 365) - LinkedIn

 **The Cybersecurity Threat Landscape** - LinkedIn

 **Cybersecurity Awareness: The Internet of Things (IoT)** - LinkedIn

 **Learning Java (2018)** - LinkedIn

 **Sub 7-kg Remote Pilot License (RePL)** - Civil Aviation Safety Authority

 **Aeronautical Radio Operator Certificate (AROC)** - Civil Aviation Safety Authority

Skills

Communication • Astrodynamics • Physics • Space Operations • Mission Design • Theoretical Physics • Astrophysics • Astronomy • Marketing • Team Leadership

Honors & Awards

O.H. Atkinson Cup - Combined Sport & Study Award - Saint Ignatius' College

Nov 2017

This award represents the student who most excelled in both their academic studies and co-curricular endeavors.

SACE Certificate of Merit (Physics) - SACE Board of SA

Nov 2017

SACE Certificate of Merit (Chemistry) - SACE Board of SA

Nov 2017

SACE Certificate of Merit (Business & Enterprise) - SACE Board of SA

Nov 2017

Certificate of Merit (Attainment) - Saint Ignatius' College

Jun 2017

Certificate of Merit (Academic Studies) - Saint Ignatius' College

Nov 2017

Business & Enterprise Award - Saint Ignatius' College

Nov 2017

This award represents the student who achieved the highest score for the subject 'Business & Enterprise' in their year level (year 12).

The Dr Gerald Schneider Subject Prize in Aeronautical Engineering

Feb 2021

The prize is awarded annually by the University of Adelaide to eligible students enrolled in the Bachelor of Engineering (Honours) (Mechanical and Aerospace) degree program or associated double degrees. The Head of the School of Mechanical Engineering will award the prize to the student who obtains the best overall result in the course MECH ENG 3100 Aeronautical Engineering.

Certificate of Completion: Summer Vacation Placement Programme - Chief Defence Scientist, Defence Science and Technology Group, Prof Tanya Monro

Feb 2021

For successfully completing a Defence Science and Technology Summer Vacation Placement Programme. By Completing this placement you have demonstrated that you can apply your knowledge and expertise to address Defence challenges; articulate and present your research to an educate and informed audience; and observe and abide by the strict protocols that govern Defence research.

Through your involvement in this program you have made an important contribution to Australia's Defence capability and are now part of a diverse STEM talent pool that can help move Defence towards a high-tech future.

The R.J. Jennings Memorial Prize for Mechanical Engineering Design - The University of Adelaide

Feb 2022

Most distinguished student in the Honours Project of the Bachelor of Engineering (Honours) (Mechanical).

Executive Dean's Recognition of Academic Excellence - University of Adelaide, Faculty of Engineering, Computer and Mathematical Sciences

Mar 2022

This annual award by the Faculty recognises exceptional academic achievement for undergraduate and postgraduate coursework students throughout their study.