



Brandon Colelough

COMPUTER SCIENTIST – Post Graduate Researcher
Fulbright Scholar
Electrical Engineer
Signals Officer – Australian Army

Profile

Ph.D. candidate in computer science and Fulbright scholar specializing Explainable AI through Neuro-symbolic approaches with a blended foundation in Computer Science, Electrical Engineering and Software Development. ADF Signals Corps Officer with a proven track record of effective leadership and management core skills able to lead a dynamic range of technically diverse teams. Expertise in evaluating hardware and software systems, proficient across multi-lingual programming languages with a solid foundation in data structures and algorithms. Demonstrates versatility in collaborative and independent projects. Excels in creating scalable, distributed software systems and addressing real-world challenges. Enthusiastic about pushing technology forward and contributing to impactful solutions. With a focus on personal and professional growth, accustomed to working in dynamic environments. Eager to leverage broad technical skills to address technology's greatest challenges and make a substantial impact.

Education

PhD Computer Science, University of Maryland (U.S.)

August 2023 – Present

- Presently conducting research into the intersection of symbolic and sub-symbolic artificially intelligent systems to increase explain ability in the human-machine teamed environment.

Electrical Engineering (CDF)(Hons), UNSW Canberra

February 2018 – November 2022

- Conducted a thesis on the use of explainable artificial intelligence on a distributed hybrid swarm architecture for use in the human-machine teamed environment.

Royal Military College - Duntroon, Canberra

January 2021 – December 2021

- Graduated with the 2021 cohort as the commander of a platoon (30 pers)
- Conducted the Army Officer Commissioning Course (GSO) program.

Australian Defence Force Academy, Canberra

January 2018 – November 2020

- Graduated with the 2020 cohort achieving first place for academic and military excellence.
- Conducted the Joint Military Education Training (JMET) program ran by UNSW Canberra.

Cert IV Aerospace Technical Trade, RAAF STT, Wagga Wagga

February 2017 – July 2017

- Proceeded to conduct work at RAAF Base Richmond as an Aviation Technician servicing the C-27J Airframe.

Employment History

Signals Officer, Army, Canberra

December 2021 - Present

- Served as a General Service Officer in the Signals Corps of the Australian Army.

Senior Under Officer, ADF, Canberra

January 2018 – December 2021

- Remained flexible, adaptable, and calm under pressure.
- Worked in roles as both team leader and manager.

Aircraft Technician, Royal Australian Air Force, Richmond

January 2017 – January 2018

- Provided quality assessments of aircraft before diagnosing specific issues and assigning repair.

Internships

Electrical Engineering Consultant at PowerEarth Engineering, Newcastle

January 2022 – February 2022

- Analysed and found solutions for problems with electrical and fixture issues.

Research Assistant, UNSW Canberra

December 2019 – February 2020

- Lead in the development of mobile platform-based applications designed for data acquisition

Details

Washington D.C.

United States of America

+1 (202) 367 7230

brandon.colelough@gmail.com

Links

[LinkedIn](#)

[ResearchGate](#)

[Instagram](#)

Skills

Software Development

Data Structures and Algorithms

Research Experience

Multilingual Programming

Communication Fluency

Complex Problem Solving

Ability to work under Pressure

Leadership Skills

References

On Request

Courses

Indigenous Cultural Awareness

Annual course from 2017 – present

Drug and Alcohol Awareness

Annual course from 2017 – present

Work Health and Safety Management

Annual course from 2017 – present

Ethics, Fraud and Integrity Awareness

Annual course from 2017 – present

First Aid Course (Basic)

Annual course from 2017 – present

Suicide Awareness

Annual course from 2017 – present

Security Awareness

Annual course from 2017 – present

Workplace Behavior

Annual course from 2017 – present

Responsible Record Keeping for

Classified Documents

March 2017

Environmental Management

March 2017

Database User Training

June 2017

Cyber Security Awareness

February 2021

Assess and Protect Official Information

February 2021

Heat Illness and Injury

March 2021

First Aid Course (Advanced)

March 2021

Instructor Training

October 2021

Leadership in the Workplace

January 2018 – December 2021

Management in the Workplace

January 2018 – December 2021

Extra-curricular activities

Washington Pipes

January 2023 – Present

- Active Participant in the Washington Pipes and Drum band.

Highland Pipes, (Canberra ADFA band, Melbourne P&D, Townsville P&D)

January 2018 – 2023

- Active part in managerial and leadership roles within the bagpiping pipes and drums band across various locations (within Australia)

Defence Riders, Canberra

January 2018 – Present

- Active part in the Canberra motorbike riding club
- Acted within vital roles for the planning of networking events.

Memberships

Phi Kappa Phi Honor Society

January 2024 – Present

AAAI

January 2023 – Present

Engineers Australia

January 2019 – Present

IEEE

January 2020 – Present

Duntroon Society

January 2021 – Present

National Society of Professional Engineers

January 2022 – Present

Honors and Awards

Fulbright Scholarship (funded by the Kinghorn foundation)

2022

Commission from the Governor General of Australia

2021

ADF Long Service Medal

2021

First Place in Graduating Cohort (ADFA)

2020

Commandants Commendation for Military and Academic Excellence

Bi-Annually from 2018 - Present