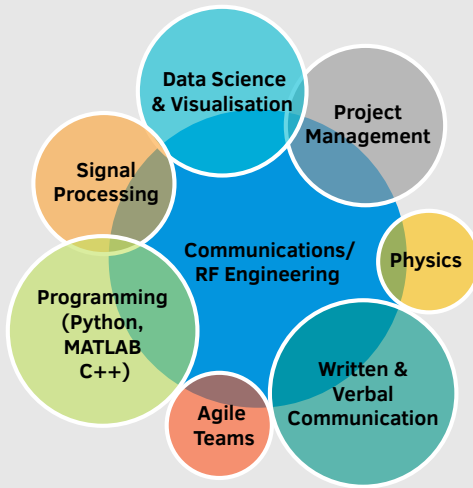# Liroy Lourenço

Global citizen using **Science|Tech|Engineering** to bring about change for the better.

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lourencoliroy@me.com

Skills

Professional Interests

- **Radio Astronomy**
- **Digital Signal Processing**
- **High Performance Computing**
- **Project Management**
- **Humanitarian Engineering**

About Me

Outside of work, I have volunteered at Engineers Without Borders, I enjoy music, cooking & travel. I am an Australian, South African & Portuguese citizen. I speak English, intermediate Portuguese and have recently been taking Japanese lessons. I am eager to learn, value relationships & am hard-working.

Clifton Strengths

Input, Learner, Futuristic, 'Intellection' & Communication

Education

2021 -	**Doctor of Philosophy** Sydney, Australia	University of Sydney
2014 - 2018	**Bachelor of Science (Physics)/ Bachelor of Engineering (Communications & Electronics) (Hons)** Melbourne, Australia 🏆 *2016 ExxonMobil Award , 2017 Juniper Networks Prize.*	RMIT University
2006 - 2010	**Bachelor of Music** Johannesburg, South Africa	University of the Witwatersrand

Publications and Research Projects

Oct 2018	**Measuring ASKAP's On-Dish Calibration Signal Level and its Impact on Beam Sensitivity**
Oct 2018	**Beamforming and Interference Mitigation with the Australian Square Kilometre Array Pathfinder Radio Telescope**
Oct 2018	**Study of Neutral Hydrogen in the galaxy NGC1365 using the Australian Square Kilometer Array Pathfinder (ASKAP) Radio Telescope**

MOOCs

Apr 2020	**TensorFlow in Practice Specialization**	deeplearning.ai (Coursera)
Sept 2019	**Deep Learning Specialization**	deeplearning.ai (Coursera)

Experience

Jan 2021 - Current	**PhD Student**	**CSIRO Astronomy and Space Science**

RFI mitigation with Phased Array Feeds including the ASKAP telescope and Cryogenic Phased Array Feed on Parkes. Including RFI survey of MRO to categorise RFI sources and assess the impact/improvement of the mitigation techniques on astronomical measurements. In particular developing and optimising subspace tracking techniques in software as an RFI source moves relative to the telescope.

Nov 2018 - Dec 2020	**Project Coordinator/Data Engineer**	**Juniper Networks**

Part of the Advanced Services and DevOps/Automation team. The role involves, data cleaning, developing python libraries/scripts and data visualisation using Tableau. Previously created CLI software to simplify the process of creating automation scripts for Junos devices. Technical interests include data science/visualisation and Agile project management methodologies.

Nov 2017 - Oct 2018	**Industrial Trainee**	**CSIRO Astronomy and Space Science**

Engineering capstone project, aimed to support critical software & system developments to more easily configure & calibrate the beamformed characteristics of the Australian Square Kilometre Array Pathfinder Radio Telescopes. The role included developing digital signal processing software, unittests & documentation as well as performing & design experiments involving ASKAP's 36 antennas.

References

Dr. Aaron Chippendale, Group Leader
Signal Processing Technologies — **CSIRO Astronomy and Space Science**
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Dr. Eva Cheng, Senior Lecturer and Deputy
Director of Women in Engineering & IT — **University Technology Sydney**
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