

# Lachlan L. Ng

## GEOSPATIAL ENGINEERING GRADUATE

Richmond, 3121, VIC, Australia

✉ nglachlan@gmail.com | [in](#) lachlan-ng | [ig](#) lachlan-ng

## Summary

Spatial data specialist with experience in data management and GNSS positioning analysis. Skilled at programmatically processing and managing data, metadata preparation, GNSS data processing and providing user support. Interested in Geodesy, Data Science and Urban Planning, passionate about sustainability in the workplace.

## Experience

### Australian Urban Research Infrastructure Network (AURIN)

DATA OFFICER

Melbourne, AUS

May 2019 - PRESENT

- Processing and management of spatial data using Python, SQL and Shell scripting.
- Data extraction, transformation, spatialisation and loading into AURIN's databases.
- Metadata preparation and maintenance to support data interpretation.
- Providing user support and writing of documentation and user guides for the AURIN Workbench.

### The University of Melbourne

ACADEMIC DEMONSTRATOR

Melbourne, AUS

Feb. 2019 - May 2019

- Provided teaching support in ENVS10006 Mapping Environments.
- Demonstrated basic spatial analysis processes in ArcGIS and fundamental surveying procedures to undergraduate students.

### FrontierSI

SBAS TEST-BED ASSOCIATE

Melbourne, AUS

Nov. 2018 - Feb. 2019

- Conducted positioning performance testing of the Space Based Augmentation System (SBAS) GNSS Test-bed signals with consumer and survey grade equipment in various environments.
- Designed test regimes, including site identification and resource management.
- Established control networks and performed data collection for static and kinematic GNSS tests.
- Post-processed GNSS observations and performed statistical positional performance analyses.

## Education

### The University of Melbourne

MASTER OF ENGINEERING (SPATIAL)

Melbourne, AUS

Feb. 2018 - Nov. 2019

- *Coursework:* Spatial Analysis, Spatial Data Infrastructure, Spatial Databases, Mathematics of Spatial Information, Satellite Positioning Systems, Engineering Management, Engineering Practice and Communication.
- *Research Project:* Positioning Performance Evaluation of Dual-frequency GNSS Observations from a Smartphone.

### The University of Melbourne

BACHELOR OF ENVIRONMENTS (SPATIAL SYSTEMS)

Melbourne, AUS

Feb. 2015 - Nov. 2017

- *Coursework:* Integrated Spatial Systems, Applications of GIS, Database Systems, Foundations of Computing, Engineering Computation.

## Honours & Awards

- |      |   |                |
|------|---|----------------|
| 2019 | <b>Ian Charles Taylor Prize</b> , Best performance in final year of Master of Engineerin (Spatial). | Melbourne, AUS |
| 2018 | <b>H.B. Howard Smith Exhibition Prize</b> , Best result in GEOM90033 Satellite Positioning Systems. | Melbourne, AUS |
| 2017 | <b>Chris Lester Award</b> , Best result in GEOM30012 Integrated Spatial Systems.                    | Melbourne, AUS |

## Skills

- |                    |  |
|--------------------|--|
| <b>Software</b>    | ArcGIS, Excel, Jira, Jupyter, QGIS, RTKLIB, Visual Studio Code |
| <b>Programming</b> | Python, R, Shell, SQL, TeX                                     |
| <b>Technology</b>  | Git, PostgreSQL, GeoServer, CKAN, Linux GNU                    |

## Extracurricular Activity

### International Global Navigation Satellite Systems (IGNSS) 2020

MASTERS RESEARCH PROJECT PRESENTATION

Sydney, AUS

Feb. 2020

- Co-presented Master's research on smartphone GNSS positioning highlighting project results and future research.