Lachlan L. Ng

Geospatial Engineer

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Summary

Spatial data specialist with experience in spatial data management and GNSS positioning analysis. Skilled at spatial data ingestion, database management, metadata preparation, GNSS data processing and user support. Interested in Geodesy, Spatial Analysis and Urban Planning, passionate about sustainability in the workplace.

Experience

Australian Urban Research Infrastructure Network (AURIN)   *Melbourne, AUS*

Data Officer   *May 2019 - PRESENT*

- Processing, management and distribution of spatial data to AURIN Users via the AURIN Platform.
- Data extraction, transformation, spatialisation and ingestion into the AURIN Databases.
- Metadata preparation and maintenance to support data interpretation.
- Providing user support and writing of documentation user guides for the Workbench.

The University of Melbourne   *Melbourne, AUS*

Academic Demonstrator   *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   *Melbourne, AUS*

SBAS Test-bed Associate   *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   *Melbourne, AUS*

Master of Engineering (Spatial)   *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.
- *Masters Research Project:* Positioning Performance Evaluation of Dual-frequency GNSS Observations from a Smartphone.

The University of Melbourne   *Melbourne, AUS*

Bachelor of Environments (Spatial Systems)   *Feb. 2015 - Nov. 2017*

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

Honours & Awards

2018	**H.B. Howard Smith Exhibition Prize,** Best result in GEOM90033 Satellite Positioning Systems.	*Melbourne, AUS*
2017	**Chris Lester Award,** Best result in GEOM30012 Integrated Spatial Systems.	*Melbourne, AUS*

Skills

Software	ArcGIS, AutoCAD, Excel, JIRA, QGIS, RTKLIB, Visual Studio Code
Programming	SQL (*Proficient*), Python (*Familiar*), R (*Familiar*)
Technology	Git, PostGIS, GeoServer, CKAN, Ubuntu

Extracurricular Activity

International Global Navigation Satellite Systems (IGNSS) 2020   *Sydney, AUS*

Masters Research Project Presentation   *Feb. 2020*

- Co-presented with Research Supervisor highlighting project results and future research.