# Andrew Nguyen

## Adelaide, Australia

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#### **EDUCATION**

## The University of Adelaide

Feb 2012 - Dec 2015

Bachelor of Software Engineering

### PROGRAMMING LANGUAGES & TECHNOLOGIES

Proficient Python Web Flask

Intermediate Java, JavaScript Databases PostgreSQL, MongoDB

Machine Learning Sklearn, Pandas

#### WORK EXPERIENCE

Research Engineer

## University of Adelaide & D2D CRC

Aug 2016 - Present

Adelaide

- Researched and developed techniques in protest prediction and emotion detection
  - Competed in machine learning comps (Big Data Cup 19, EmotionX 19, Semeval 19) producing models that were competitive against the state of the art and ranking highly on the leaderboards
  - Developed a Bayesian model for protest prediction that emphasised interpretability instead of being a black box
  - Built a web app and REST API to demonstrate the application to end users

## Semantic Sciences

May 2016 - Aug 2016

Software Engineer

Adelaide

- Prototyped a grant review system in an effort to secure a major contract
- Worked independently using Meteor (a JavaScript framework) to build the system from the ground up

**Daelibs** Feb 2016 - May 2016

Software Engineer

Adelaide

- Built internal tools to streamline the setup of proprietary software on devices used in the security personnel industry
- Integrated python scripts and built a Meteor web app that logged vital device info for later tracking and ticketing

#### Data 2 Decisions CRC

 $\mathrm{Dec}\ 2015$  - Feb2016

Software Engineer Intern

Adelaide

- Worked on two heavy algorithmic projects involving natural language processing, network analysis and clustered computing in Java
- First one was inferring the country of origin of suspicious Twitter users based on their immediate network. Implemented a label propagation algorithm that constructed the user's network (100,000s node networks) and accurately classifying their country with 70% accuracy (sampling).
- Second one was a Dynamic Query Expansion algorithm that used NLP techniques and TFIDF to discover relevant emerging topics given an initial seed topic