Arjun Prakash

Data Scientist | ML Engineer

Professional Experience

Deloitte Consulting (Analytics and Cognitive),

Graduate Consultant

Mar 2020 - present | Sydney, Australia

Mitsubishi Electric R&D, Data Science Intern

Dec 2019 - Feb 2020 | Fujisawa, Japan

- Reviewed literature on geo-trajectory data and built a two stage classification/regression model to predict when a user returns home for IoT devices.
- Features, insights and recommendations were used in production by the Advanced Machine Learning Group.

Intela AI, Data Science Intern

Jan 2019 - Feb 2019 | Wellington, New Zealand

- Built a convolutional neural network to identify rugby formations from video footage.
- Applied SpaCy to pre-process, and Word2Vec to embed veterinary notes and find insights into animal diagnoses.
- Investigated the travel patterns of age-care workers which resulted in a successful business proposal.

Deloitte Consulting (Analytics and Cognitive),

Summer Vacationer

Nov 2018 - Dec 2018 | Sydney, Australia

• Used SHAP to make black box machine learning algorithms interpretable for senior managers.

Fund3, Data Science Intern

Dec 2017 - Dec 2018 | Santa Monica, USA

- Implemented complex kernels and support vector machines to forecast volatility of the top cryptocurrencies.
- Managed a team of students to deliver an automatic messaging system that notified users of unusual activity on the blockchain.

Projects

Stan Droid, St Andrew's College Chatbot

May 2017 – present

- Developed a customer service chatbot for students and admin staff of St Andrew's College, University of Sydney, with continuous integration and unit testing.
- 90% uptake and over 100 thousand messages per year.

Scopus Miner, Australian Defense Force Academy and University of Sydney Software Enginnering Group Project Jul 2018 - Nov 2018

- Engineered, using an Agile methodology, an NLP web app that extracts rich data from academic literature and presents insights in a visual and interpretable format.
- Primary contributions were the use Neo4j to represent relationships as an interactive graph, and LDA to model topics.

Education

University of Sydney, Computer Science & Business Analytics (Double Bachelor Degree)

- Computer Science (Hons I): Focused on programming with an emphasis on algorithms & data structures.
- Business Analytics: Focused on statistical methods to understand data for forecasting and machine learning.

University of Southern California, Marshall School of **Business**, Exchange Semester

2017

- Lavalab Incubator: Created a Hubspot-like CRM web app with Vue.js.
- Studied subjects focusing on entrepreneurship, technology and management consulting.

Research

Honours Thesis (First Class),

University of Sydney, School of Computer Science

- Researched online change point detection methods to segment financial time series and cluster volatility regimes.
- Developed a novel regime switching trading strategy.

Skills

Data Science

Forecasting, Machine Learning, Deep Learning, NLP, SHAP

Data Science Tools

Jupyter, Pandas, NumPy, SciPy, Scikit-Learn, Keras, TensorFlow

Programming Languages

Python, R, C++, C, Java, SQL

Software Enginineering Tools

Github, Dialogflow, CircleCI, PostgreSQL, Heroku, Firebase, Neo4j, Linux, Agile

Awards

Microsoft Asia Senior Research Prize, University of Sydney

Awarded for Scopus Miner.

Taylor Scholarship, St Andrew's College

Awarded twice for Stan Droid.