# JEREMIAH MANNINGS

SENIOR DATA SCIENTIST
& IAPA TOP 25


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## SUMMARY


I am a Senior Data Science Consultant focused on creating machine learning, natural language, and deep learning projects valuable and relatable.

I'm currently working on leading successful data science projects to create solutions that empower people and companies to achieve their goals.

I have experience working in Python using various data science libraries such as Tensorflow, NLTK, many other tools. I also extensively use cloud services such as AWS, GCP, & Azure.

Recognised for industry contribution as one of the Top 25 Analytics Professionals in Australia by Institute of Analytics Professionals of Australia (IAPA). I was also selected as one of the Top 100 Future Industry Leaders in Australia consecutively for 2016 & 2017, nominated for the Innovation & User Experience awards.


## EXPERIENCE

### Senior Data Science Consultant

Capgemini ANZ

05/2018 - ongoing

As a Senior AI Consultant at Capgemini I design, architect, and lead projects in the artificial intelligence space. This role involves being a subject matter expert providing client guidance, guidance to junior consultants as well as those interested in the space. My focus is on:

- Designing & architecting projects with a focus on business ROI.
- Leading & developing capability and teams.
- Running advisory and learning sessions for clients.
- Scoping & managing projects.

### Data Science & AI Consultant

Altis Consulting

01/2017 - 05/2018

Utilising a strong foundation in Cognitive technology, data science and engineering processes; I undertook client implementations with a focus on:

- Designing, delivering, & leading productized AI solutions for clients.
- Development of deep learning Neural Network projects (Tensorflow/Keras, image/video recognition, forecasting).
- Natural language classification and annotation projects.
- Working in cloud ML environments with Python (AWS/Azure/Google Cloud).

## ACHIEVEMENTS

**Top 25 Analytics Leader 2018**
Recognised as one of the top 25 analytics professionals in Australia by IAPA.

**Top 100 Future Industry Leader 2017**
For the Suncorp Banking innovation award.

**Top 100 Future Industry Leader 2016**
For the Accenture design and user experience award.

**Intergrated Learning Scholarship**
Awarded on academic merit and internal testing (top 5%)

## EDUCATION

### Bachelor of Electronic and Electrical Engineering (Honours)

Deakin University

2013 - 2017

### Diploma of Project Management

Swinburne University

2014 - 2015

## EXPERIENCE

### Assistant Data Science Instructor

General Assembly

01/2017 - 07/2017

Taught a variety of data science subjects with a focus on regression techniques, machine learning, neural networks and natural language processing & classification. Running instructional classes, and tutoring students in practical DS. Providing deep dives into natural language techniques, advanced neural networks and image analysis.

### IBM Watson Associate

IBM Watson Delivery ANZ

06/2015 - 01/2017

As the first Watson IBM Associate in the AP region; I worked on implementing cognitive solutions using IBM Watson Data Science for various clients.

- Developed an experimental natural language search API system on a banking innovation project.
- Led machine learning model development on experimental servers.
- Trained in IBM text processing and converstaional development using WCA/WDA/WEX, WCS.
- Led development of server and data automation scripts using Python.
- Led development an experimental cognitive text processing application that halved processing time for incoming documents.
- Watson API subject matter expert (NLP), international Hackathon mentor, led CVA projects.
- Strategic planning, migrations, and client integration.

## PERSONAL PROJECTS

### MBC Technologies - CoinStore

2018 - ongoing

This project uses second trading data (300M+ rows) used for real-time arbitrage trading. This includes heavy pipeline development on AWS for constant trading model training (LSTM's, ARIMA etc) to keep models up to date on the data. Using neural networks and advanced deep learning to exploit inefficiencies in cryptocurrency markets.

### Austether (AUDT)

2018 - ongoing

This project is based around using the Stellar blockchain network to build a regulated tether network for use within Australia. This is currnently under an NDA in stealth mode.

### EMA

2017 - ongoing

EMA uses advanced user context analysis to produce NLG in natural conversations. This enables the user to treat EMA like a friend. This is under development.

## SKILLS

- Python, SQL
- Machine Learning
- Cognitive Technology
- AWS cloud development
- Natural Language (NLP)
- Git, Data Design
- Natural Language Classification
- Client Management
- Conversational Systems
- Tensorflow, Keras, NLTK
- AWS Machine Learning
- Leading & Developing Teams
- Strong Work Ethic

## MENTORING

### Advisory Board Member

2017 - 2018

The Future of AI Technologies in Life Sciences. Advice on AI Applications and Futures.

### Watson Bluemix API Mentor

2016

Python & Bluemix mentor for Watson API hackathon 2-day event @ Lab14 Carlton.

### Waston Hackathon Mentor

2016

I was the lead Python Mentor for the Watson API hackathon 3-day event in South Korea with industry partners.

## GITHUB

https://github.com/jwmannings

A lot of the code on my github is in private mode. If requested, I can produce a number of private projects for code examples.

# SAMPLES OF RECENT PROFESSIONAL PROJECT WORK

## RMIT Student Retention

2018 This is an ongoing project based around using neural nets and a variety of classification models to understand why students drop out of classes and how that can be improved. Partnered with AWS & RMIT.

## ANZ Graph Machine Learning

2018 This was a project based around using tax obligation legislation from countries around the world and building an intelligent system to understand the effects of these changing contexts from a variety of input scenarios.

## Call Center Feedback Classification

2018 This was a small project designed around using open source NLTK to classify incoming user queries and complaints in a call center. The project worked in near realtime, enabling quick segmentation of users.

## Asset Age Failure Prediction Machine Learning

2017 This project utilised xgboost and sklearn to undertake advanced machine learning on a dataset provided by Yarra Valley Water to create a model to predict when their main line water pipes will fail. This project was done on AWS RDS & EDS instances built entirely in python. WIth a significantly amount of iterative model development, the project was able to achieve a 86% accuracy with a modified xgboost model.

## Bill Shock Azure Machine Learning

2017 This project uses the Azure machine learning platform to undertake learning on millions of rows of user data including financial and historical factors, as well as property and customer location. This is primarily using a multitude of advanced decision trees and Bayesian algorithms based on financial and IoT data.

## Advanced Image Analytics Model

2017 This project was primarily based on Tensorflow neural networks. The aim is to take a custom set of images from the client and use it to create a closed classification system. This is based on CNN (convolutional neural networks) and was built with python. This model was able to obtain a 74% accuracy from the clients difficult dataset.

## Watson Conversation Mentor

2016 I was previously one of the mentors for the Watson Conversation API (WCS), having completed one of the very first implementations of this new NLP technology. I also used this on development slack, and messenger chat bots, using Python and WCS. These projects were standardized, documented and added to IBM‘s internal GIThub.

## Woodside Energy Watson@Woodside Project

2016 I was on a small highly skilled implementation team of Cognitive Engineers producing valuable insights using WEX enterprise search & WEA, using natural language and analytics visualization with detailed NL annotation. I was the lead specialist on Watson@Woodside project for the WEA projects. The biggest collection of documents in the Watson portfolio worldwide. I built machine learning text classification models, developed dialog, run remote server testing, and created data analysis usage trends.

## Suncorp Innovation Labs CVA

2016 In this project I led the development for an early use case of Watson Conversation, which was designed to act as an advanced search system using input in a natural form to classify the intent of the user. This was used as a search assistant, where the conversational service analyzed and past back search terms and objects to the orchestration layer which tailored the search results.

## Deakin University Watson Project

2015 Watson at Deakin is a first of its kind intelligent NLP assistant, I primarily worked on the natural language classification (by training NLP clusters) as well as building advanced dialog services and user flows as well as classifying and maintaining documents.

*Referees and letters of recommendation are avaliable upon request.*