

Justin Barton

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EDUCATION

Springboard (www.springboard.com)

May – Aug 2016

- Data Science Intensive – Project learning with Harvard lectures and industry mentor

University of Adelaide, Australia

Feb 2004 - Nov 2008

- Bachelor of Science – Mathematical & Computer Sciences
- Bachelor of Engineering (honours) – Electrical & Electronic

Proficient with: Python, Pandas, SQL Server, Postgres, SAP HANA, Hadoop, Tableau, Java, C#, SQL, VBA, Excel, Access, XML, JSON, jupyter, Azure Blob Storage, Azure Table Storage, AWS, git

Experience in using: scikit-learn, R, Mathematica, Matlab, Flask, Adobe Analytics, Google Analytics, Javascript, HTML, Jinja, heroku

CAREER SUMMARY

AGL Energy - *Helping to shape a sustainable energy future*

Aug 2017 - current

- Senior Customer Analyst - Innovation (python, pandas, SQL Server, SAP HANA, Postgres, Tableau)

Marketplacer - *Building marketplaces for e-Commerce companies*

Feb 2017 - Jun 2017

- Data Engineer (python, pandas, Postgres, Tableau)

GrantTree (UK) - *startup - Funding for tech companies and corporates*

Oct 2014 - Oct 2016

- Data Analyst (python, pandas, R, Visual Basic, Excel)
- Product and Software Lead (building software & new business for high volumes of clients)
- Mentor (leading training workshops, external presentations to create partnerships, sales)

Leyton (UK) - *Funding for tech companies and corporates*

Dec 2013 - Oct 2014

- Research & Development Tax Consultant (technical & financial analysis for clients)
- Writer (technical reports for non-technical people)

ASC (Australia & Spain) - *Submarines & ships – building & maintenance*

Jan 2009 – Apr 2013

- Data and Software Engineer (SQL, Visual Basic, Access, Excel)
- Engineer (Project, Controls, Electrical, Logistics & Production Support)

PERSONAL PROJECTS

- [Predicting the brownlow](#) - Predicting the winner and 8 of the top 12 players.
- [Film Recommendation Engine](#) - Finding life altering films for people.
- Automating the financial modelling of investments with pandas and flask on AWS.

CAREER DATA PROJECTS - HIGHLIGHTS

AGL Energy

- Enabled unstructured customer IoT data to be usable for analytics and reporting in SQL
 - Built ETL (Extract, Transform, Load) for 1000s of homes' unstructured solar and load monitoring data (IoT) from Azure Blob and Table Storage, from an unknown and undocumented data model.
- Improved analysis capability for advanced analytics team
 - Built extensions on pandas in python to perform automated data manipulations including: filtering/mining/searching dataframes, counting value combinations, csv handling, split summary statistics.
 - Built object relational mapper (ORM) for extracting and mining data using python, whereby the ORM creates SQL at run time.
 - Extended ORM to work in conjunction with: Hadoop, SQL Server, Postgres, SAP HANA and other classes derived from these, for domain specific applications using inheritance.
- Created data strategy and analytics for new energy plan partnered with Amazon
 - Defined data strategy and risks to create the contract between AGL and Amazon to launch AGL Skills (voice control) on Amazon Alexa.
 - Built propensity model to predict which customers would purchase the EDM Smart Home energy plan using data from Customer Analytic Record (feeding Pega) and Adobe Analytics.
 - Built automated daily reports for AGL Skills and Smart Home product suite, drawing in and manipulating disparate sources from: Azure Table Storage, SAP HANA and network folder csvs, running on an Azure virtual machine.
- Increased AGL's technical understanding of our virtual power plant through analysis
 - Conducted a study on spurious electricity grid disconnection issues on 300 battery customers to estimate through experimental modelling the value lost to each customer.
 - Analysed battery data to model and understand the value created during bulk battery control operations (orchestration) on 100s of homes in the AGL battery network.
 - Analysed raw battery data from disparate files to calculate real-life energy efficiency for new Tesla, LG and SolarEdge energy storage devices (battery & inverter)

Marketplacer

- Transformed 100s of tables of data across 15 e-Commerce sites to create insight.
 - Built ETL software running on AWS to manipulate 100s of tables of data across 15 e-Commerce sites to deliver insight reporting in Tableau.

GrantTree (UK)

- Estimated cost per R&D claim to drive new product development
 - Analysed 5 years of R&D Tax claim data to build a new business case. Cost model for claims drove the decision to invest in a new business model. Developed new product and software for clients.