Patrick **SABRY**

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<u>Education</u>

Bachelor of Engineering, Diploma in Professional Engineering Practice   **02/2015 – 12/2021**
Major: Software
Sub Major: Data Analytics
University of Technology, Sydney

- **2021 Faculty of Engineering Dean's List Award recipient**

Higher School Certificate   **01/2009 - 10/2014**
Marist College, Kogarah

<u>Employment History</u>

Data Engineering Lead
Oz Hair & Beauty Pty Ltd   **08/2021 - present**
5-7 Resolution Drive, Caringbah NSW

- Spearheading brand new Data & Business Intelligence department at one of Australia's top two hair & beauty online retailers. Duties and achievements include:
    - Developed and enforcing a holistic data governance policy framework in alignment with ISO 27001 & GDPR frameworks.
    - Developed cloud data infrastructure including data warehouse, reporting platform and data cleansing & integration automations. I was responsible for the project management and implementation of a from-scratch data warehouse platform including solution architecture (AWS, Snowflake) and project workflow management (Agile scrum, sprint management).
    - Developed analytical dashboards for monthly, weekly and adhoc reporting requirements using Tableau.
    - Multi-cloud database development and administration using AWS and Snowflake.

Data Scientist   **11/2018 – 08/2021**
CareerOne Pty Ltd
Level 5, 44 Pitt Street, Sydney

- Pioneered CareerOne's machine learning function for its brand-new platform. Duties and achievements include:
    - Data visualisation and supporting analytics for day-to-day sales and marketing operations using MySQL, Python and Chartio (viz platform). BI reporting and data wrangling directly contributed to month-on-month platform user and sales growth.
    - Development and integration of data ETL pipelines with legacy systems using Python and Laravel (PHP) for use in machine learning models (Python). This most notably involved

formulating and executing a large-scale data acquisition strategy for ML model training.

- Design and development of predictive machine learning models for classification and regression tasks pertaining to CareerOne's core user experience (Python, TensorFlow). This included the development of deep NLP models (TensorFlow, Keras, Scikit-Learn) for job salary, industry, and occupation classification & regression. The models deployed superseded all previously used predictive algorithms in performance and accuracy.
- Productionization and deployment of machine learning solutions for use in the brand's core product using TensorFlow, Python API, PHP (Laravel) and AWS.
- R&D - data mining and predictive modelling to provide industry insights into job-centric data. Contributed to proprietary research papers which led to the award of numerous government research & development grants.
- Established development process and version control for CareerOne's machine learning function.

- Developed numerous microservices for the automated acquisition and ingestion of job data from third-party sources, accounting for a 20% average increase in job advertisements on the CareerOne platform.
- Contributed to the development of CareerOne's internal admin CRM platform, conducting fullstack development work using Vue JS (front end) and PHP Laravel (REST APIs & microservices). These tools allowed for the automation of a plethora of business operations, allowing non-technical personnel to self-serve and reduce software developer resource costs.

Testing & Quality Assurance Analyst   **01/2018 - 11/2018**
CareerOne Pty Ltd
Level 5, 44 Pitt Street, Sydney

- Agile SCRUM BA, product testing, test lifecycle management, execution & documentation, end to end test co-ordination across business units.
- Data modelling and analytics. Supporting business operations & management through reporting and data visualization using MySQL and data viz platform Chartio.
- Successful delivery of a major legacy platform transformation project playing an integral role in data validation and software quality control throughout the project lifecycle. Successful delivery of legacy platform migration allowed for 70% reduction in operational hardware and software costs.

Intern Technical Business Analyst   **08/2016 - 02/2017**
CareerOne Pty Ltd
Level 11, 418A Elizabeth Street, Surry Hills

- Assistant to Project Co-ordinator on two major projects, responsibilities involved business requirements analysis and facilitating an Agile workflow within the product technology team. This involved stakeholder analysis, resource management, backlog refinement, release scoping, QA testing and writing technical documentation for consumption of company testing teams.

Technical Skills

- ETL/ELT pipeline development & data integration using Python, SQL, Apache Airflow.
- Dimensional modelling of traditional data warehouse architecture adhering to the Kimball design paradigm.
- Analytical model development using dbt, SQL.
- Data governance framework implementation in accordance to ISO 27001 / GDPR frameworks.
- Proficient with SQL relational modelling and querying. 3+ years' experience data modelling production grade systems using a data-driven development approach.
- Proficient in Python 3 scripting for data wrangling as well as API development (flask).
- Familiar with popular machine learning frameworks and libraries including TensorFlow, Keras, Scikit-Learn, OpenCV, seaborn/matplotlib, pandas, NumPy.
- End to end design, development and Productionization of machine learning models. Firsthand experience taking a conceptual ML model from prototype all the way to production including AWS infrastructure architecture. Notable familiarities with machine learning include:
  - Pre-processing of hybrid textual/numeric feature spaces. Familiar with concepts of discretization, binning, class balancing, encoding and scaling.
  - Hyperparameter tuning
  - NLP modelling for binary & multivariate classification tasks.
  - Linear regression modelling.
  - Deep neural network design for business classification/regression tasks
- Familiar with the Amazon Web Services ecosystem including EC2, RDS, Redshift, Glue, VPC/security group configuration.
- Experienced with backend PHP development using the Laravel framework. 2+ years' experience working in a production environment building complex backend systems for the CareerOne platform.
- Experience using Vue JS framework for front end web app development at CareerOne. Component centric development experience building & maintaining components for CareerOne's user-facing app, as well as internal CMS admin dashboard.

Transferable Skills

- Confident team player, experience working in lean, cross-functional agile teams.
- Strong technical and subjective written skills
- Able to show initiative and work autonomously.
- Punctual, virtuous moral compass and respectful of others.

Referees

Paul Dinh | **PH:** 0410 750 468 | **Email:** Paul.Dinh@careerone.com.au
Head of Sales, CareerOne

Steven Spencer | **PH**: 0438 771 228 | **Email**: steve.spencer@careerone.com.au
Lead Software Engineer, CareerOne