

CONTACT

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Brisbane, Australia

Possess both Canadian & European Union (Polish) citizenships & hold work authorization for Canada, Europe, & Australia. Open to relocating to the USA and flexible to remote, hybrid, or in-person job opportunities.

Website: <https://justingrima.github.io/>

LinkedIn: <https://www.linkedin.com/in/justin-grima-852297155/>

Projects: <https://github.com/JustinGrima?tab=repositories>

EDUCATION

JAMES COOK UNIVERSITY

Master of Data Science

2022 - 2024

Graduated with high distinction.

Intensive coursework in the fundamental concepts and tools used in data science, including Data Mining, Data Engineering, Statistics, Machine Learning, Artificial Neural Networks and AWS.

Practical training in industry-standard software and programming languages such as SAS, Python, R, SQL, and Tableau to collect, analyze, and visualize data effectively.

Emphasis on critical thinking and problem-solving skills, including the ability to apply data-driven approaches to real-world business challenges.

WILFRID LAURIER UNIVERSITY

General Bachelors of Science

2010 - 2014

4 years of laboratory experience (undergraduate): experimental work, analysis, and report writing.

Volunteer with ESKA Water business seminar series.

COURSES

AWS / AWS Academy Machine Learning Foundations - February 2024

AWS / AWS Academy Cloud Foundations - February 2024

Python/ The Complete Python Bootcamp From Zero to Hero in Python - July 2023

SAS/ Specialisation in Advanced Data Science - June 2023

TESOL International Association/ Advanced Training for Teaching English Online - December 2018

PADI/ Open Water Course - January 2016

i-to-i TEFL/ Teaching English as A Foreign Language - August 2015

JUSTIN GRIMA

DATA SCIENTIST

A passionate technology enthusiast and educator with a diverse project background. Interactions with exceptional individuals have broadened my perspective. Grounded in the belief that success requires deliberate leadership and collaborative knowledge exchange, I am ready to contribute my skills as a Data Scientist in dynamic workplaces. Eager to contribute to the intersection of technology, healthcare, and environmental industries, I bring a robust skill set. Proficient in Python, R, Tableau, AWS, and SQL, my expertise extends beyond these tools, encompassing a deep understanding of Data engineering, a variety of Supervised and Unsupervised Machine Learning algorithms, and knowledge of Artificial Neural Networks. This comprehensive knowledge allows me to navigate vast datasets, uncover meaningful trends, craft insightful visualizations, and develop predictive models tailored to help you achieve your business goals.

DATA SCIENCE PROJECTS

[click here to view my projects directly from my website](#)

Unearthing Insights: Revolutionizing Soil Image Classification with Advanced CNN Models

February 2024

Developing and optimizing Convolutional Neural Networks for Soil Classification.

Development of Convolutional Neural Network (CNN) models for soil image classification, employing techniques such as Batch Normalization, Dropout, and Early Stoppage to enhance model performance.

Conducted rigorous hyperparameter tuning and evaluation to optimize CNN architectures, ultimately achieving superior classification accuracy (up to 60.87%) and demonstrating expertise in machine learning model development.

Can enhance decision-making in agriculture, geology, and engineering, and influencing construction, landscaping, ecosystem health, and agricultural practices.

Solving the Online Job Maze

December 2023

Implementing WebCrawlers and Investigating NLP Systems to Simplify Complex Job Posts and Identify Skill Trends within the Current Job Market.

Developed and deployed Web Crawlers to efficiently extract data science job postings from job websites.

Conducted text pre-processing to clean text data and create corpus.

Explored, implemented, and optimized NLP text summarization models, including TextRank, Latent Semantic Analysis (LSA), T5, and BART.

Leveraged Word2Vec to aid in crafting a comprehensive list of technical skills in the field of Data Science for trend analysis.

Implemented ROUGE evaluation metrics, assessing unigrams, bigrams, and trigrams using precision, recall, and F1 scores. TextRank and LSA achieved the highest text summarization scores: precision 1, recall 0.86, and F1 0.92.

Can simplify job posts and identify skill trends, aiding businesses in talent acquisition and market analysis.

Resilience Down Under

OCTOBER 2023

Navigating Unemployment Trends in Australia (1982-2023) to Predict and Forecast Future Unemployment Trends.

Implemented Ridge and Lasso Regression, Decision Trees (Bagging and Random Forest with bootstrapping and Boosting), SVM with linear, radial, and polynomial kernels, and Artificial Neural Network with 1-3 layers, utilizing Adam, ReLU, and RMSprop optimizers. The goal was to predict the unemployment rate in Australia.

A 2-layer Artificial Neural Network with the RMSprop optimizer exhibited the best performance, achieving the lowest Mean Squared Error (MSE) of 2.33, Root Mean Squared Error (RMSE) of 1.53, and Mean Absolute Error (MAE) of 1.22.

Provides policymakers, economists, and businesses with valuable insights into the complex landscape of the Australian labor market for strategic planning and economic forecasting.

Decrypting Customer Behaviour

MARCH 2023

Implementation of Logistic Regression to Predict Subscription Term Deposit.

Implemented logistic regression with diverse link functions, including logit, probit, Cauchy, cloglog, and log, to forecast subscription to a term deposit.

Logistic regression, the logit link function demonstrated the highest performance, achieving an accuracy of 90.71%.

Provides banks with actionable insights to enhance marketing strategies and customer retention for term deposit subscriptions.

Predicting Heart Failure

DECEMBER 2022

A Multi Machine Learning Comparative Investigation.

Utilized Logistic Regression with stepwise selection, Naïve Bayes, Algometric Hierarchical Clustering (AHC), and Density-Based Spatial Clustering of Applications with Noise (DBSCAN) methodologies for predictive modeling of heart failure.

Applied Association Rule Mining (ARM) to identify medical conditions associated with heart failure.

SKILLS

- Python
- R
- SQL
- Big Data
- Statistics and Math
- Data Engineering
- Tableau
- Machine Learning and AI
- Natural Language Processing
- Cloud Computing
- Data Ethics
- ETL
- Agile Project Manager

AWARDS

- United Advertising Group
October 2018
While working for United Advertising Group I received the "Top 10 sales rep in Australia awarded by Global Interactive Group.
- BK Baun Landscaping
August 2015
While working for B.K. Baun Landscaping our team received the "Residential Construction Award of Excellence" and the "Special Interest Construction Award of Excellence by Landscape Ontario

HOBBIES

- Coding
- Research analysis
- Landscaping
- Renovation
- Carpentry
- Travel
- Guitar
- Scuba Diving
- Soccer
- Snowboarding
- Fitness

LANGUAGES

- English (Fluent)
- French (Basics)
- Korean (Basics)
- Polish (Basics)

- Logistic regression outperformed other models, with **99.85% accuracy**.
- Provides healthcare organizations with **actionable insights** for early diagnosis, treatment planning, and resource allocation for predicting heart failure.
- **Parents Combined Education Level and their Effect on Student Academic Performance** **OCTOBER 2022**
Variable Analysis Report.
 - Investigated the **correlation** between higher Combined Parent Educational Level (CPEL) and enhanced student academic success.
 - Children of parents with the highest CPEL exhibited the highest correlation with academic success.
 - Students with a low CPEL demonstrated strong academic performance, correlating with substantial family educational support and a commitment to pursuing higher education, contributed to their academic success surpassing expectations.
 - Provides educational institutions with **insights** to tailor support programs based on parental education levels, enhancing student academic performance and success.
- **Queensland 2014 NAPLAN School Stats** **JUNE 2022**
Tableau Dashboard
 - Utilized the 2014 Australian government NAPLAN data to develop a **Tableau Dashboard** tailored for both international and Australian **teachers actively seeking employment opportunities** in Queensland.

WORK EXPERIENCE

- **University of Sydney** **February 2024 - Current**
Research Assistant
 - Conducted statistical analyses in RStudio, ensuring MERMAID database compliance and data integrity for global coral reef research.
 - Addressed data-related inquiries, supporting the team and resolving data gaps and standard issues.
 - Managed data quality assurance, ensuring large dataset accuracy and contributing to key scientific insights on coral reef ecosystem services.
- **Australian Research Council (ARC) Centre of Excellence for Coral Reef Studies** **JULY 2023 - OCTOBER 2023**
Data Scientist
 - Conducted statistical analyses in RStudio, ensuring adherence to MERMAID database standards and validating data accuracy for global coral reef research.
 - Developed a 'golden data template' for scientists, streamlining the collection process and facilitating accurate integration into the MERMAID coral reef database.
 - Addressed data-related inquiries, providing essential support to the project team and resolving issues related to missing data and database standards.
 - Managed data quality assurance and validation processes, ensuring the accuracy of extensive datasets, and contributing to the generation of crucial scientific knowledge for coral reef ecosystem services.
- **FX Business Technologies** **SEPTEMBER 2022 - DECEMBER 2023**
Technical Support
 - Responsible for managing a maintenance program on all printers on the James Cook University Campus.
 - Providing technical service and support to students and employees of the university when needed.
 - Responsible for inventory control of all parts to ensure uninterrupted printer maintenance and repair schedules.
- **SGS** **SEPTEMBER 2021 - FEBRUARY 2022**
Geochemical Lab Technician
 - Offer mineral analytical services to the mining sector, specializing in LECO instrument operation and maintenance.
 - Expertly prepare samples for diverse test methods and perform mineral element analyses (e.g., Carbon, Sulfur, Copper Concentration).
 - Lead training sessions for employees on LECO instruments, and diverse mineral analysis methods, and manage material inventory.
- **United Advertising Group** **APRIL 2018 - OCTOBER 2018**
Team Trainer
 - Efficiently led sales campaigns, driving increased revenue.
 - Mentored new hires on product knowledge and sales strategies for project success.
 - Streamlined communication through weekly conference calls, provided educational materials and delivered feedback to decision-makers for enhanced employee performance.
- **VIPKid and Gangwon Office of Education** **AUGUST 2015 - JUNE 2022**
ESL Teacher
 - Conducted immersive English language lessons for Chinese and Korean students (ages 4-16) both remote and internal, adhering to North American Common Core Standards.
 - Developed language skills (reading, writing, speaking) while integrating English into language arts, math, social studies, and science problem-solving.