Alan Gaugler
Data Analyst

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CAREER SUMMARY

A Data Analyst at the Department of Education and Employment (DEWR), with expertise in extracting, transforming, and visualizing complex datasets to drive policy development and strategic decision-making. Holds a Master of Data Science and a Graduate Diploma in Information Technology from the University of Canberra, graduating with a perfect Grade Point Average of 7/7 and receiving the Dean's Excellence Award each semester. Skilled in machine learning, statistical modelling, exploratory data analysis, and data visualization.

Has a strong background in telecom network design, optimization and data analysis from previous roles with over 25 years of experience in project management, data-driven problem-solving, optimization and technical consulting.

Actively seeking a challenging role that utilizes my skills and experience in data science, machine learning and data analytics.

SKILLS

- Python (Pandas, NumPy, Scikit-learn, Jupyter).
- R, R Studio.
- Machine learning and modelling.
- Pattern and trend recognition.
- Exploratory Data Analysis (EDA). KPI Analysis.
- Microsoft Excel, Office.

- SQL.
- Power BI.
- Management of design and optimization teams.
- Data collection, preparation, and wrangling.
- Project Management.
- Excellent presentation and communication skills.

PROFESSIONAL EXPERIENCE

November 2023 – Present.
Data Analyst at the Department of Employment and Workplace Relations (DEWR)

Applying analytical skills to support the department's data-driven objectives and guide policy development. Key responsibilities include:

- Utilizing MS SQL to extract, transform, and prepare datasets for insightful analysis of apprenticeship data, driving meaningful insights and informed decision-making.
- Exploratory Data Analysis and visualization to uncover key insights and patterns in large apprenticeship datasets using R Studio. Datasets include Apprenticeship survey data and ADMS.
- Using R Studio for statistical analysis, visualization and modelling. Projects include apprenticeship completion rate classification and time-series forecasting of apprenticeship commencements.
- Using Power BI to create dashboards and reports that provide visual and tabular representation of KPIs and insights, improving the presentation of information to key stakeholders and management.

February 2023 – November 2023.
Tutor at the University of Canberra

Tutoring Professional Practice in IT. Applied vast IT experience to introduce students to the ICT industry and develop their professional, teamwork, reporting and presentation skills.

July 2016 – May 2020

Career Break: Travelling the world. Took this opportunity to explore different countries, cultures, and experiences.

1992 – June 2016. Principal Performance Engineer, Consultant, RF Design & Optimization Engineer
Nokia/Alcatel-Lucent. New York, USA. 2008 – 2016.
Various RF consulting firms, including MSI & Aircom. Several markets in the USA. 1996 - 2008.
Telstra Mobile Networks. Sydney, NSW, Australia. 1992 – 1996.

Consultant as Principal Engineer contracted out to various mobile network carriers and vendors as RF design and optimization engineer. Principal responsibilities included:

- Managed design and optimization teams and processes for network rollouts and performance improvement, ensuring on-time project delivery within budget and quality constraints.
- Optimized and tested 3G and 4G networks, significantly enhancing KPIs and customer experience.
- Project management of the design, construction, and network integration of radio base stations, ensuring the entire process adhered to budget, timeline, and quality requirements.
- Data analysis of KPIs & traffic data utilizing advanced tools to diagnose and resolve network performance issues and plan for future network capacity.
- Worked with major vendors and network operators including Nokia, Ericsson, Alcatel-Lucent, Motorola, Telstra, AT&T, Sprint, Verizon, & T-Mobile.
- Managed of drive test teams, and conducted detailed analysis of drive test and call data to resolve issues & improve network performance. Collected data for model tuning.
- Conducted network design and capacity planning using advanced cell planning and mapping tools, ensuring networks were appropriately dimensioned to meet future coverage and capacity needs.
- Developed RF Propagation models to accurately predict site coverage and plan for future network capacity needs.

EDUCATION

2021 – 2023. Master of Data Science and Graduate Diploma in IT. University of Canberra

Specialisation in AI and Computational Modelling. Grade Point Average 7/7. Weighted Average Mark 93/100.

- **Programming for Data Science:** Developed a strong foundation in Python for data science applications, including testing code, object-oriented programming, and utilizing libraries such as Pandas, NumPy, Scikit-Learn, Tkinter, and Jupyter. Notable projects include: Design of classifier algorithms integrated with a GUI application. Converted wireless network protocol messaging into machine-learning datasets for cyber-attack detection.
- **Data Wrangling:** Demonstrated expertise in data preparation and transformation using R, R Studio, and Python, enabling effective analysis and model readiness.
- **Pattern Recognition and Machine Learning:** Applied advanced techniques to solve complex problems, including classification, regression, and natural language processing, leveraging modern machine learning models.
- **Computer Vision and Image Analysis:** Image processing and analysis using MATLAB and Python.
- **Exploratory Data Analysis and Visualisation:** Extensive experience with R Studio, Python, and Excel to perform data exploration, identify trends, and create compelling visualizations.
- **Statistics:** Applied statistical methods and inference, utilizing tools including Excel and R.
- **Technology and Engineering Management:** Acquired key skills in project management, leadership, teamwork, risk analysis, and quality assurance, ensuring effective execution of technical and team-based projects.

Recent Additional Certifications. 2022 – 2023

Microsoft Azure Data Fundamentals, DP-900. Coursera: Learn SQL Basics for Data Science.

Coursera: IBM Data Science Professional Certificate. 10 Courses with capstone. Python for Everybody Specialization.

1988 – 1991. Bachelor of Electronics Engineering. University of Canberra.

Completed Bachelor of Engineering in Electronics and Communications Engineering, University of Canberra.

REFEREES

Available upon request.