

SHOURYA THAPLIYAL

Data Scientist | Software Engineer | Melbourne, Australia

+61 423 058 511 | shouryat32@gmail.com | LinkedIn: www.linkedin.com/in/shourya-thapliyal-53630b153

Portfolio: shouryathapliyal.com

PROFESSIONAL SUMMARY

Data-driven Software Engineer and Data Scientist with experience delivering secure, scalable systems across banking, analytics, and research domains. Proven ability to translate business and research requirements into production-ready APIs, data pipelines, and dashboards. Strong contributor in Agile/Scrum teams, offering end-to-end delivery across backend development, data engineering, analytics, and automation

EDUCATION

- Master of Data Science-University of Melbourne | 2023 – 2026
Coursework: Machine Learning, Big Data Analytics, Statistical Modelling, Cloud Computing
Industry-focused projects in social media analytics and mental health data pipelines
 - Bachelor of Engineering (Computer Science)-Nitte Meenakshi Institute of Technology | 2016 – 2020
Strong foundation in software development, data structures, algorithms, and system design
-

WORK RIGHTS

Visa: Temporary Graduate Visa (Subclass 485) – Valid until Jan 2029

WORK EXPERIENCE

Software Engineer Tata Consultancy Services (Client: Commonwealth Bank of Australia) | Bangalore, India | 2021 - 2022

- Designed, developed, and supported enterprise banking applications using Java, Spring Boot, and RESTful APIs, aligned with Australian banking security and compliance standards.
 - Collaborated within Agile/Scrum teams alongside business analysts, QA engineers, and DevOps to deliver production-ready features within tight release cycles.
 - Improved application performance, scalability, and reliability through refactoring, performance tuning, and proactive defect resolution.
 - Conducted unit testing, peer code reviews, and production support, ensuring adherence to secure coding practices and operational resilience.
 - Contributed to customer-facing enhancements by developing responsive UI components for the NetBank Preference Centre, improving usability and self-service adoption
-

SELECTED ACCOMPLISHMENTS

- Delivered 15+ production-grade REST APIs supporting payments, account services, and transaction processing, improving interoperability across enterprise banking systems.
 - Reduced API delivery cycle time by 30% by introducing reusable integration components and automated CI/CD testing pipelines.
 - Achieved 95% automated test coverage, reducing regression testing effort by 60% using Selenium and Python-based automation frameworks.
 - Built a scalable analytics pipeline to standardise and analyse 5+ years of unstructured survey data across 200+ course pairs using the Kirkpatrick evaluation model, replacing hours of manual assessment with automated insights.
 - Developed a hybrid LLM-assisted and ML-based classification system for limited and imbalanced datasets, achieving 85% accuracy using weighted ensembles, cache-first design, and human-in-the-loop validation
-

PROJECTS ACADEMIC & INDUSTRY

Energy Price & Weather Correlation Analysis – Australia

Data Engineering & Machine Learning Project

- Built a real-time analytics and ML pipeline on Databricks to analyse correlations between electricity prices and weather conditions across Australia.

- Integrated National Electricity Market (AEMO) data with Bureau of Meteorology datasets for near real-time ingestion and analysis.
- Designed and scheduled hourly Databricks notebooks to ingest, clean, and transform pricing and weather data.
- Developed machine learning models using historical data to predict daily energy demand proxies and generation mix (coal, solar, wind).
- Delivered insights through interactive Power BI dashboards visualising price trends, weather correlations, and energy source breakdowns

Phoenix Australia – Mental Health Analytics Pipeline

Oct 2024 – Dec 2025

- Built an automated data pipeline integrating Qualtrics APIs to analyse mental health course feedback for research and program evaluation.
- Developed interactive dashboards using Power BI and Python (Plotly, Matplotlib) to track engagement, outcomes, and longitudinal trends.
- Implemented ETL workflows using Python and SQL to clean, transform, validate, and manage participant datasets at scale.

Australia Social Media Analytics Platform – University Project

Aug 2024 – Nov 2024

- Designed a cloud-based analytics platform using Docker, CouchDB, and NGINX on the University of Melbourne Research Cloud.
- Processed 100,000+ social media posts per month, performing sentiment analysis correlated with publicly available crime datasets.
- Automated infrastructure provisioning using Ansible, reducing environment setup time by 70%.

Cardiac Arrhythmia Prediction System – Undergraduate Thesis

2019 – 2020

- Developed an ML classification model achieving 72%+ accuracy using Python and PhysioNet datasets.
- Built a real-time diagnostic interface using HTML, CSS, and Node.js.
- Published research at an international conference (Springer ERCICA, Volume 1)

PUBLICATIONS

Thapliyal, S. et al. (2020). *Cardiac Arrhythmia Prediction Using Machine Learning*. International Conference on Emerging Research in Computing, Information, Communication and Applications (ERCICA), Springer, Volume 1.

TECHNICAL STACK

Programming & Data: Python, Java, SQL, R, JavaScript

Libraries & Frameworks: Pandas, NumPy, Scikit-learn, XGBoost, TensorFlow (basic)

Data Engineering & Analytics: ETL Pipelines, Data Modelling, Feature Engineering, Power BI, Plotly, Matplotlib, REST API Integration

Cloud & DevOps: Docker, Ansible, CI/CD Pipelines, Linux, NGINX

Databases: PostgreSQL, MySQL, CouchDB, Data Warehousing Concepts

Testing & Quality: Unit Testing, Integration Testing, Selenium, Automated Regression Testing

Methodologies & Domains: Agile/Scrum, Banking & Financial Systems, Research Analytics, Secure Coding & Compliance

CERTIFICATIONS

Hugging Face – AI Agents Fundamentals, MCP, Production Automation (2025)| Google Data Analytics Professional Certificate – Google (2025)|SQL (Basic & Intermediate) – HackerRank (2025)|Intermediate R – DataCamp (2023)|Mastering DAX calculations in microsoft power BI