

SHOURYA THAPLIYAL

Data Scientist & Software Developer

[Portfolio](#) • +61 423 058 511 • shouryat32@gmail.com • Melbourne, Australia • Visa: 485 (Valid until Jan 2029) • [LinkedIn](#)

PROFESSIONAL SUMMARY

Data Scientist with 2 years software engineering experience at Tata Consultancy Services delivering banking solutions. Recent Master of Data Science graduate (2025), specializing in machine learning, NLP, and AI agents (Hugging Face certified). Proven track record: 84% ML model accuracy, 95% test automation coverage, 15+ API integrations. Published researcher with hands-on experience in financial services and healthcare analytics.

EDUCATION

Master of Data Science

University of Melbourne | 2023 - 2025

Coursework: Machine Learning, Big Data Analytics, Statistical Modeling, Cloud Computing. Industry projects included social media analytics platforms and mental health data pipelines.

Bachelor of Engineering (Computer Science)

Nitte Meenakshi Institute | 2016 - 2020

Specialization in Software Development and Data Structures. Strong foundation in programming fundamentals, algorithms, and system design.

PROFESSIONAL EXPERIENCE

Software Engineer

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

- Engineered and deployed 15+ API integrations for payment processing, account management, and transaction services
- Reduced average API integration time by 30% through reusable code frameworks and automated testing
- Achieved 95% test coverage and reduced regression testing time by 60% using Selenium and Python automation frameworks
- Built responsive front-end components for NETBANK Preference Centre with JavaScript and CSS for user preference management

KEY PROJECTS

Phoenix Australia Mental Health Analytics Pipeline | Oct 2024 - Dec 2025

- Built automated data pipeline integrating Qualtrics API to analyze mental health course feedback
- Developed interactive dashboards using Power BI and Python (Plotly, Matplotlib) tracking outcomes and engagement metrics

- Implemented ETL workflows using Python and SQL to process participant data for research and program evaluation

Academic & Competition Projects

Machine-Generated Text Detection (Kaggle Competition) | Jan 2024 - Mar 2024

- Achieved 84% accuracy using ensemble methods (Random Forest, XGBoost, Neural Networks), ranked top 10%
- Implemented feature engineering and hyperparameter tuning with cross-validation
- Developed text classification pipeline using NLP techniques (TF-IDF, word embeddings)

Australia Social Media Analytics Platform (University Project) | Aug 2024 - Nov 2024

- Built cloud analytics system using Docker, CouchDB, and NGINX on University of Melbourne Research Cloud
- Implemented sentiment analysis correlated with crime data, processing 100,000+ posts monthly
- Automated deployment using Ansible, reducing infrastructure setup time by 70%

Cardiac Arrhythmia Prediction System (Undergraduate Thesis) | 2019 - 2020

- Developed ML classification model achieving 72%+ accuracy using Python and PhysioNet dataset
- Created interactive GUI with HTML, CSS, Node.js for real-time cardiac diagnostics
- Published research findings at international conference (Springer ERCICA Volume 1)

PUBLICATIONS

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

TECHNICAL SKILLS

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| Languages: | Python (Advanced), R (Advanced), SQL, Java, JavaScript (HTML, CSS, Node.js) |
| ML & AI: | scikit-learn, XGBoost, Random Forest, TensorFlow, Hugging Face (Transformers, Agents, MCP), NLP |
| Data Engineering: | Pandas, NumPy, ETL Pipelines, Data Modeling, Feature Engineering, Qualtrics API |
| Visualization: | Power BI, Tableau, Plotly, Matplotlib, Seaborn, Interactive Dashboards |
| Databases: | SQL (PostgreSQL, MySQL), CouchDB, NoSQL, Database Design |
| Cloud & DevOps: | Docker, Ansible, NGINX, REST APIs, CI/CD, University Research Cloud |
| Tools & Methods: | Git, JIRA, Selenium, Jupyter Notebooks, Agile/Scrum, Test Automation |

CERTIFICATIONS

- Hugging Face: AI Agents Fundamentals, MCP, Automation in Production (2025)
- Google Data Analytics Professional Certificate – Google (2025)
- Intermediate R – DataCamp (2023)
- SQL Basic and Intermediate Certifications – HackerRank (2025)

References available upon request