Youmna Elshimy

Aspiring Data Analyst / AI Engineer / Software Engineer

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CAREER OBJECTIVE

Recent Computer Science (Honours) graduate with a strong foundation in AI, machine learning, and data engineering. Proficient in Python, Java, R, C++, SQL/NoSQL databases, and frameworks such as TensorFlow, PyTorch, and Scikit-learn. Experienced in developing AI models and conducting data analysis through hands-on projects. Currently completing Google's Data Analytics Professional Certificate and preparing for the CompTIA Data+ and Microsoft PI-300 certifications. Actively pursuing entry level opportunities to contribute to real-world AI projects and grow within a collaborative software development team.

SKILLS

- **Data Analysis & Preprocessing:** Data Mining, Data Manipulation, Data Preprocessing, Exploratory Data Analysis (EDA), Cross-Validation

- **Database Technologies & Management:** Relational Databases (MySQL, Oracle SQL, Google BigQuery), Non-Relational Databases (MongoDB), ELT processes, Data Warehousing, Database Administration, Database Design, Database Development

- **Model Evaluation & Metrics:** Confusion Matrix, Precision, Recall (Sensitivity), F1 Score, AUC-ROC, Accuracy, Specificity

- **Spreadsheet Tools:** Microsoft Excel, Google Sheets, Pivot Tables, Functions (VLOOKUP, IF, COUNTIF, etc.)

- **Data Visualization Tools:** Looker Studio, Tableau, Matplotlib, Seaborn

- **Programming Languages & Web Technologies:** Python, R, Java, C++, JavaScript, HTML, CSS

- **AI & Machine Learning:** Supervised Learning (Decision Trees, Random Forests, Linear Regression, Logistic Regression, Support Vector Machine (SVM), Unsupervised Learning (K-Means), Image Processing, Text Processing, Time Series Forecasting, Hyperparameter Tuning (Grid Search, Random Search, Bayesian Optimization)

- **Deep Learning Frameworks:** TensorFlow, Keras, PyTorch

- **Software Development:** Object-Oriented Programming (OOP), Microservices Architecture, Domain-Driven Design (DDD), RESTful API Development, Event-Driven Stream Processing, Version Control (Git, GitHub), Software Testing & Debugging, Agile Methodologies, AWS (S3, EC2, Lambda)

- **Software & Tools:** RapidMiner, Apache Kafka, IDEs (RStudio, Google Colab, VS Code), Jira, Trello, Gantt Charts

- **Soft Skills:** Problem-solving, Critical Thinking, Analytical Thinking, Attention to Details, Communication, Teamwork, Fast Learner, Goal-Oriented, Time Management, Project Management, Driven, Resilience, Leadership

PROJECTS *(more projects available upon request or on portfolio website)*

Text Classification Using Neural Networks   **Jun 2025**
- Developed a neural network to classify 2,225 BBC news articles into six categories using NLP techniques.
- Preprocessed text data with tokenization, stopword removal, and padding for model input.
- Built a neural network model using Keras (TensorFlow backend) with embedding, pooling, and dense layers.
- Achieved 99% training and 95% validation accuracy.

Assessing Generalisation Gaps in Image Classification   **Sep 2024 – Oct 2024**
- Managed a 3-member team, coordinating tasks, timelines, and meetings.
- Investigated generalization gaps between ImageNet and ImageNetV2 using CNN models in Python.
- Tuned hyperparameters to improve model performance, achieving 0.89 (ImageNet) and 0.81 (ImageNetV2) accuracy/F1.
- Created performance visualizations and documented analysis in a detailed report.

CERTIFICATIONS & Memberships *(Full list available upon request or on LinkedIn & portfolio)*

- **ACS Member | Australian Computer Society (ACS)**   **Mar 2025 - Present**

- **Google Data Analytics Professional Certificate | Google**   **Mar 2025 - Present**

- **Applied Deep Learning | MaharaTech**   **Jun 2025**

▪ **AWS Academy Cloud Foundation**   **Sep 2023**

EDUCATION

Professional Year in IT | QIBA, Australia   **Mar 2025 - Present**

Honours in Computer Science | University of Wollongong, Australia   **Feb 2024 – Nov 2024**
Achievements – Distinction WAM

Bachelor of Computer Science (Software Engineering) | University of Wollongong, Australia   **Mar 2021 – Nov 2023**
Achievements – Distinction WAM, Undergraduate Excellence Award, Collaboration, Communication Learning Stream Award, &
Leadership Learning Stream Award, UOWx Award

Foundations Studies Program | University of Wollongong College, Australia   **Jun 2020 – Feb 2021**
Achievements – High distinction WAM, Outstanding Achievement Award

EMPLOYMENT HISTORY

Exam Invigilator, Scribe, and Reader | University of Wollongong, Australia   **Apr 2024 – Nov 2024**
- Ensuring exam conditions were followed and prohibited materials were removed.
- Acting as a scribe and/or reader, transcribing answers and reading questions aloud as needed.
- Supervising the student to prevent academic misconduct.
- Recording key exam details, including timing, incidents, and observations.

Student Accessibility Peer | University of Wollongong, Australia   **Feb 2024 – Nov 2024**
- Providing organised, reliable support to students with disabilities to enhance their university experience.
- Assisting students with moderate access needs in labs and ICT tasks, offering guidance and organizational strategies.
- Tutoring students during lab sessions, including reading materials and transcribing responses when needed.
- Reporting any critical incidents to supervisors.

Student Brand Ambassador | Campus Group, Australia   **Feb 2024 – Oct 2024**
- Promoted client businesses on university campuses through creative and engaging marketing campaigns.
- Exceeded daily sign-up targets, achieving 20+ sign-ups/day in a DoorDash campaign with a 10-signup goal.

Student Accessibility Assist | University of Wollongong, Australia   **Jul 2023 – Nov 2024**
- Edited and formatted transcripts generated by speech recognition software to ensure clarity and accessibility.
- Delivered accurate transcripts within 2 days of video upload to support inclusive education.

Customer Solutions Specialist | ProbeCX, Australia   **Mar 2023 – Apr 2023**
- Responded to inbound voter enquiries during the NSW State Election within set timeframes.
- Assessed individual voter circumstances and delivered guidance aligned with electoral policies.

VOLUNTEERING

EIS Mentor | University of Wollongong, Australia   **Jul 2024 – Nov 2024**
- Guided EIS students through university systems and resources.
- Organized workshops on Python, web development, machine learning, and cryptography.
- **Achievements:** Awarded certificate of recognition for mentoring.

Technology Assistant Volunteer | Illawarra Multicultural Services, Australia   **Mar 2024 – Jun 2024**
- Assisted multicultural community members with device troubleshooting and account setup.
- Delivered digital literacy sessions tailored by age group on topics like online safety and AI.

Pulse Volunteer & Pantry Leader | UOW Pulse, Australia   **Jul 2022 – Nov 2024**
- Managed volunteer teams and pantry operations supporting student wellbeing.
- Maintained inventory, recorded visits, and ensured smooth event setups.
- **Achievements:** Recognized as Volunteer of the Month (Feb 2024) and received Innovation & Community Award for improving pantry systems, efficiency and service delivery.

Cisco MentorMe Program Mentee | Cisco, Australia   **Aug 2022 – Sep 2022**
- Participated in job shadowing with industry professionals in software engineering and marketing.

Study Australia Industry Experience Program Participant | Practera, Australia   **Nov 2021 – Jan 2022**
- Collaborated with a diverse team to research, strategize, and present solutions for not-for-profit client: Murris on the Move.
- **Achievements:** Earned "Deal Book Program Completer" badge.

REFEREES

Available upon request