Varun Anand

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EDUCATION

Trinity College Dublin   Dublin, Ireland
B.A. Moderatorship Honors in Computer Science   *Expected Graduation: Sep 2025*

EXPERIENCE

Dell Technologies   Dublin, Ireland
Student Software Engineer   *Jan 2023 – May 2023*
- Developed a custom **Named Entity Recognition (NER)** model using **Python** libraries **SpaCy** and **Flair**, processing over **10,000** Dell support logs to identify critical entity types with **92%** accuracy.
- Automated support query categorization using **Python** scripts, reducing manual processing time by **33%** and enhancing customer support efficiency.
- Collaborated with a cross-functional team of **10** members across **4 Agile sprints**, utilizing **GitHub** and **Jira** for task management and implementing **CI/CD** pipelines.

Liferay International   Dublin, Ireland
Student Software Engineer   *Jan 2024 – May 2024*
- Designed and developed a **Student Job Portal** using **SpringMVC**, **Liferay DXP**, and **JavaScript**, streamlining recruitment for over **50** companies and reducing average recruitment time by 25%.
- Led a Front-End Development Team of 4 members, creating **15** responsive **UI/UX** components and mentoring junior developers in best practices within an **Agile framework**.
- Delivered scalable and maintainable solutions, ensuring **99.9% system uptime** and accommodating a user base growth of **150%**.

PROJECTS

Dynamic Flight Pricing Engine | *Python (Flask), React.js, PostgreSQL, scikit-learn, Docker*   Sep 2024 – Present
- Designed and implemented a dynamic pricing engine to optimize **Ryanair flight ticket prices** in real-time based on **demand**, **booking trends**, and **competitor pricing**, resulting in a **10%** increase in revenue.
- Built **RESTful APIs** using **Flask** to fetch and process historical data from **PostgreSQL** and simulate real-time bookings, handling up to **1,000** requests per minute.
- Developed **predictive pricing models** using **Linear Regression** and **Decision Trees**, achieving **95%** accuracy by analyzing features including days to departure, booking trends, competitor prices, and seasonal demand.

Pedestrian Crossing Analysis System | *C++, OpenCV*   Sep 2024 – Nov 2024
- Developed a system to automatically analyze over **1,000** images of pedestrian crossings from a car's perspective, handling varying lighting and environmental conditions with **90%** accuracy.
- Applied advanced computer vision techniques, including **region-based processing** and **edge detection**, to locate and evaluate pedestrian crossings in static images, improving detection speed by **30%**.
- Tested performance across **100+** datasets, providing metrics and analyzing robustness and failure cases.

TECHNICAL SKILLS

Programming Languages: Python, Java, C++, SQL, PHP, JavaScript
Data Processing & Machine Learning: Pandas, NumPy, Deep Learning (TensorFlow, spaCy), scikit-learn
Software Development: Distributed Systems, REST API Design, Microservices, SDLC, Agile (Scrum), CI/CD
Cloud & DevOps: AWS (Certified Cloud Practitioner), Docker, Kubernetes, Git, Jira, Monitoring & Alerting Solutions
Database Systems: MySQL, PostgreSQL, Oracle
Frameworks & Tools: ReactJS, NodeJS, Spring Boot, GraphQL, JUnit, Flask, Liferay DXP
Testing: Unit Testing, Integration Testing, Load & Performance Testing

CERTIFICATIONS

Amazon Web Services   Dublin, Ireland
AWS Certified Cloud Practitioner | View Certificate   *Dec 2024 – Present*

Amazon Web Services   Dublin, Ireland
AWS Certified Solutions Architect - Associate   *Est. Completion: Feb 2025*