Ronan Banerji

Engineering Graduate

I am driven by the potential of AI and cloud-based solutions to transform industries. My experience spans developing machine learning models for real-time applications and creating scalable cloud platforms. I focus on how AI, IoT, and automation can optimize operations and drive innovation in sectors like construction and data centres.
I'm seeking opportunities with forward-thinking organizations where I can apply my expertise in AI deployment, cloud infrastructure, and data-driven problem-solving to create impactful solutions.

SKILLS

- **AI & Machine Learning:** Expertise in model development across classification, time series, reinforcement learning, and computer vision applications. Familiar with both synthetic data generation and real-time data applications.
- **Cloud Platforms:** Experience with cloud-agnostic deployment and platforms like AWS and Microsoft Azure.
- **MLOps & Model Deployment:** Proficient in MLOps practices, including model storage, deployment, and monitoring, ensuring adherence to client-specific constraints.
- **Data Forecasting & Optimization:** Skilled in statistical techniques such as ARIMA for time-series forecasting, with experience optimizing systems like data center energy usage.
- **Tools & Technologies:** Python, Docker, Databricks, PowerBI, and cloud-native services, with a focus on developing bespoke solutions.
- **Research & Development:** Conducted research in system-of-systems optimization and AI model development, contributing to process improvements and innovative solutions.

Endorsements available on LinkedIn

CONTACT

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EXPERIENCE

AI Industry Consulting Analyst Intern

Schneider Electric - AI hub • Boston, USA • 2022 - 2023

In my role at Schneider Electric, I gained hands on experience working as a data scientist and building AI based solutions. More specifically, I worked in a team that focused on cloud and data centres; my work involved:

- **AI Model Development:** Built AI templates for classification, time-series analysis, and more for future clients. Developed a computer vision application for real-time detection and classification.
- **Cloud-Agnostic Model Deployment:** Led the development of a cloud-agnostic model deployment platform, collaborating with AWS to meet client-specific needs and improve scalability.
- **Simulated Environments & Synthetic Data Generation:** Designed simulated environments that produced synthetic data, facilitating efficient model testing and validation without reliance on real-world data.
- **Data Center Optimization:** Researched and initiated a system-of-systems optimization model for improving data center Power Usage Effectiveness (PUE), with interest from companies like CyrusOne Data Centers.
- **Real-Time Energy Forecasting:** Developed ARIMA-based models for forecasting energy usage in a microgrid and created mock dashboards for model monitoring.
- **Process Improvement & Onboarding:** Published an API protocol to streamline processes, enabling new employees to quickly learn internal systems and methodologies.
- **Computer Vision Application:** Built a real-time detection and classification system using computer vision, significantly improving response time and accuracy for clients in various industries.

Founder & Director of Start-up

BuildBoard Ltd • Sussex, UK • November 2023 – Present

- I founded BuildBoard Ltd to create a platform that connects construction workers, contractors, and customers, aiming to improve competitiveness, job applications, salaries, and work quality across the industry. Currently, I am leading the development of the application, focusing on refining the product's core features and user experience. My work involves collaborating with developers and industry professionals to ensure the platform meets the needs of all users while laying the groundwork for future growth and innovation.

Private (Pte), Army Reserves

Light Infantry • UK • 2023 – Present

- As a Private in the Army Reserves, I've gained experience working in challenging environments that require discipline, teamwork, and quick thinking. My role involves following structured processes and adapting to rapidly changing situations, which has strengthened my resilience and problem-solving skills. These experiences have helped me remain focused and efficient in high-pressure scenarios, skills that I carry into my professional work.

EDUCATION

Materials science and Engineering (BEng): 2:1

Swansea University • 2020 - 2024

- **Final Year Dissertation: Automating Microstructure Classification and Analysis Using Computer Vision**
  Developed a machine learning model using the YOLOv8n architecture to automate microstructure classification, significantly reducing time and labor while maintaining high accuracy. This project showcased deep learning applications in real-world industrial challenges, demonstrating how AI can drive efficiencies in material science.
- **Industrial Processes and Engineering Standards**
  Gained a strong understanding of manufacturing workflows and engineering standards, enabling me to develop AI models aligned with practical, scalable industry requirements.