

Prathamesh Kulkarni

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PROFILE SUMMARY

Experienced AI Engineer and Data Scientist with extensive experience developing and implementing cutting-edge solutions across diverse industries including Gaming, Fintech, Automobile, Trade Finance, and Logistics. Expertise in machine learning, time series forecasting, cloud architecture (AWS), and end-to-end AI solution deployment. Adept at balancing technical expertise with business acumen to deliver tailored, scalable solutions that drive operational improvements and support data-driven decision-making across organizations.

PROFESSIONAL EXPERIENCE

Feb 2023 - Present Sr. AI Engineer, bizAmica Software Pune, India

- Lead the development of AI-driven solutions across multiple industries, automating processes using AI, resulting in significant operational improvements.
- Architected cloud infrastructure on AWS for large-scale data processing systems, supporting financial operations, logistics, and AI-driven business processes, handling high data volumes and improving operational efficiency.
- Collaborated directly with clients to understand business needs, deliver tailored solutions, manage changing requirements, and provide technical support, ensuring high client satisfaction and successful project delivery.
- Drove business growth by leading POC (Proof of Concept) and pilot projects, quickly delivering high-quality results to secure new client engagements.
- Spearheaded demos and technical presentations to potential clients, demonstrating innovative solutions and driving client confidence in AI/ML technologies.
- Set up AI departments for clients, delivering solutions such as HR, Legal, RFP, and IVR systems, enabling clients to adopt AI-driven processes and improve decision-making.
- Oversaw the simultaneous execution of multiple AI, DevOps, and software development projects, balancing diverse challenges and ensuring timely, successful outcomes across ongoing projects.
- Mentored and guided teams on best practices in AI/ML, software development, and cloud architecture, fostering a collaborative environment between technical and business stakeholders.

Jun 2022 – Oct 2022 Data Scientist, Sky Betting and Gaming Leeds, United Kingdom

- Collaborated closely with domain experts to understand the manual fraud detection process and its limitations, gathering requirements to build a machine learning model for fraud prevention.
 - Analyzed and validated key features from large datasets, assessing their relevance with experts to improve model accuracy and interpretability.
 - Researched, tested, and compared various machine learning algorithms, selecting the best-performing models aligned with business goals for ease of understanding and implementation.
 - Handled end-to-end model development, ensuring high accuracy (achieved 95%) and real-time performance on live data, addressing real-world fraud cases.
 - Delivered explainable AI solutions to provide transparent predictions, facilitating the trust of non-technical stakeholders in the model's decisions.
 - Deployed the model into production, working with domain experts to continuously validate and optimise performance for fraud detection thresholds.
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SKILLS

- **AI/ML:** Python, SQL, Machine Learning, NLP, LLMs, Langchain, Computer Vision, Data Analysis,
- **Cloud & DevOps:** AWS (Lex, Lambda, EC2), GCP, Docker, Kubernetes, Terraform, CI/CD pipelines
- **Development:** API Development, Model Deployment, Chatbot Development, Code Analysis
- **Soft Skills:** Team Leadership, Project Management, Cross-functional Collaboration

PROJECTS

- **Air Cargo Tonnage Prediction:** Led the development of data-driven forecasting models for air cargo tonnage, addressing multiple levels of granularity (airport, cost centre, customer, and commodity) to enhance decision-making and resource allocation in logistics.
- **High-Volume FASTag Processing for Banks:** Designed and deployed AWS infrastructure for processing 14,000 FASTags daily and managing a backlog of 7.5 million FASTags. The architecture handled networking, load balancing, scaling, security, and deployment to support the new KYV (Know Your Vehicle) process.
- **HR, Legal, and RFP Chatbots:** Developed LLM-powered chatbots using Retrieval-Augmented Generation (RAG) for efficient document retrieval, content generation, and updates. Enhanced operational efficiency across HR, Legal, and RFP teams.
- **Logistics Chatbot for Airport and Dock Management:** Created a real-time chatbot to provide up-to-date information on airport facilities and docks, improving cargo management for freight forwarders and airport authorities.
- **LLM-Powered IVR System for Logistics Client:** Implemented an IVR system integrated with LLMs to automate routine customer inquiries, reducing support call volume by 30-40% and enhancing service delivery.
- **izDox AI Platform Enhancements:** Optimized document processing pipelines in the izDOX platform, achieving a 25% improvement in extraction accuracy by integrating LLMs for financial and logistics document processing.
- **Fault Detection using Computer Vision in Assembly Lines:** Developed an advanced fault detection system using computer vision and pattern matching to identify silent faults in PLC programming, resulting in a 10X improvement in efficiency and minimizing assembly line disruptions in the automotive industry.

EDUCATION

Oct 2021 – Oct 2022	Master of Science in Data Science, Lancaster University	Lancaster, United Kingdom
Aug 2016 – May 2020	Bachelor of Engineering in Electronics and Telecommunication, Sinhgad Institute of Technology and Science	Pune, India

LANGUAGES

English(C2), Hindi(C1), Marathi(Native), French(A2)