

# Isha Kulkarni

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## OBJECTIVE

Postgraduate student in Computer Science at the University of Southampton, specialising in Python, Machine Learning, and Generative AI. Bringing over 2 years of experience in computer science, with a strong foundation in programming, data structures, and machine learning. Skilled in developing intelligent systems and applying analytical approaches to solve complex technical problems. Seeking internship opportunities to apply and expand expertise in software development, data science, and emerging AI technologies through innovative, research-driven projects.

## EDUCATION

### University of Southampton- Highfield Campus

*Masters in Computer Science (GPA-)*

**Sept 2025- Ongoing**

*Southampton, UK*

Coursework: Artificial Intelligence, Machine Learning Technologies, Natural Language Processing, Deep Learning.

### Marathwada Mitramandals College of Engineering

*Bachelor of Engineering in Information Technology (CGPA-9.02)*

**Aug. 2019 – Jul. 2023**

*Pune, India*

Coursework: Computer Networks, Database Systems, Artificial Intelligence, Data Structures and Algorithms

## TECHNICAL SKILLS

**Languages:** Python, Java, React.js, HTML/CSS

**Databases:** MySQL, MongoDB.

**Developer Tools:** GitHub, Amazon Web Services, VS Code, Colab, Pycharm, Power BI, Tableau, Jupyter Notebook.

**Libraries:** LangChain, Tensorflow, Pytorch, Pandas, NumPy, Scikit-Learn, PySpark, AzureOpenAI, Hugging Face.

**Misc:** Data Visualisation, RAG, LLM, Generative AI, Machine Learning, Prompt Engineering, Fine Tuning, AI Agents, Salesforce.

## EXPERIENCE

### Python Generative AI Developer

*Persistent Systems Ltd.*

**Aug. 2023 – July. 2025**

*Pune, India*

- Led adoption of GenAI solutions (Python, TensorFlow, PyTorch, OpenAI APIs) in high-impact projects such as PiQE.AI and Connector.AI, Canary.AI, SASVA resulting in 35–60% gains in developer and testing productivity.
- Developed and delivered 5+ GenAI solutions/accelerators, deployed across top-tier client projects using technologies like LangChain, Hugging Face Transformers, and cloud platforms (AWS, Azure, GCP).
- Engineered advanced agents with the agentic approach on MCP server, incorporating orchestration frameworks and multi-agent systems. Facilitated enterprise-wide adoption of AI code assist tools: GitHub Copilot, Amazon CodeWhisperer, Google Gemini, Microsoft Azure.
- Engaged directly with clients and CXO-level executives (50+ meetings/POCs), presenting GenAI initiatives and achieving executive buy-in.
- Articulated business value of GenAI leveraging robust technical stacks and aligning solutions with industry best practices.
- Championed innovative approaches, ensuring delivery excellence and adherence to industry standards.

### Python Developer Intern

*Revamp Consultancy*

**Nov. 2022 – June. 2023**

*Pune, India*

- Developed an invoice processing system by designing and implementing a data extraction pipeline using Python and Tesseract OCR. Utilized Pandas to perform accurate data validation, ensuring the integrity of extracted financial information.
- Engineered seamless integration with the accounting system, which streamlined the financial workflow and reduced manual entry.
- Collaborated with a team to troubleshoot and optimize the system, resulting in high performance and reliability.
- Achieved a notable reduction in manual workload and errors, contributing to a more efficient and reliable invoicing process.
- Employed Git for version control and Jupyter Notebook for rapid prototyping during development.

## PROJECTS

### GenAI-Based UI Testing Solution | Python, GenAI, Flask, Pandas, REST, OpenAI, Claude

- Developed a Python and Flask-based tool that utilizes Generative AI and LLMs to automate the creation of UI testing scripts.
- Designed a system that accepts object repositories and testing scenarios, enabling the generation of tailored scripts in multiple programming languages for diverse frameworks.
- Achieved a 50% reduction in manual script creation time by ensuring consistent and reliable script generation.
- Significantly enhanced the efficiency and scalability of UI testing processes, allowing teams to deliver high-quality products faster.

### **Malicious Activity Detection on Social Media | Python, NLP, ML, Scikit-learn**

- Developed a machine learning-based system to detect and classify malicious activities such as spam, fake accounts, and hate speech on social media platforms.
- Implemented NLP techniques for data preprocessing, sentiment analysis, and feature extraction to improve model performance.
- Trained and evaluated multiple classification algorithms, achieving high accuracy in distinguishing malicious from genuine content.
- Published a research paper highlighting the system's potential for real-time monitoring and online safety enhancement.

### **Test Script Migration Framework | Python, Selenium, Playwright, LLMs, REST, Flask**

- Developed an automated framework to migrate existing Selenium test scripts into Playwright using Generative AI and Large Language Models (LLMs).
- Designed a pipeline that parses legacy Selenium code, extracts locators and logic, and regenerates equivalent Playwright-based scripts with enhanced modularity.
- Integrated REST APIs for seamless script generation, version tracking, and validation within CI/CD workflows.
- Reduced manual migration effort by over 60%, ensuring faster adoption of modern test automation frameworks.

### **Alteryx Connector Development | Python, AWS, Curl, Pandas, REST**

- Object oriented development of high-quality connectors for various datasource platforms like Tableau, SharePoint, OneDrive, ADLS, S3, Box, and Google Drive. Implemented FIPS-compliant authentication on Alteryx Designer, ensuring security, and optimized data processing with Pandas and PyArrow for enhanced efficiency.
- Enhanced Tableau connector performance by 140%, elevated file handling capacity by 240% through the implementation of file conversion to Parquet format and the incorporation of a robust chunking mechanism.

## CERTIFICATIONS

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| <ul style="list-style-type: none"><li>• GenAI for Practitioners - Persistent Systems.</li><li>• AWS CloudEngineer (infra) Jr. Developer.</li><li>• GenAI Foundation- Coding using Amazon CodeWhisperer.</li></ul> | <ul style="list-style-type: none"><li>- Generative AI with LLM by Deep Learning and AWS</li><li>- Test Automation (Java) - Jr. SDET Certification</li><li>- A1 German Language</li></ul> |
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## LEADERSHIP AND ACHIEVEMENT

- Persistent FY24 Bravo Awards Winner- Recognized for GenAI Solutions Innovation.
- Engineering- College 3rd Rank Holder for consecutive 3 Years
- Best Innovative Project Award – Final Year Project “Malicious Activity Detection on Social Media”, recognised for innovation and impact in AI-based social media monitoring.