Manasa Yegamati

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PERSONAL PROFILE

A dedicated and highly proficient Software Engineer with over 2 years of experience, currently advancing expertise through an MS in Computer Science with Industrial Placement at the University of East London. Possesses a strong track record in designing and implementing responsive web applications using ReactJS and NextJS, enhancing user experience and operational efficiency. Skilled in programming languages, including C++, Python, and SQL, and adept with industry-standard development tools such as GitHub, Jupyter Notebook, and VS Code. Proven ability to deliver scalable cloud-based solutions on AWS and GCP, reducing server costs and enriching accessibility. Eager to contribute technical expertise to impactful projects that drive measurable results for a forward-thinking employer.

KEY SKILLS, CERTIFICATIONS and ACHIEVEMENTS

- Programming Languages: C, C++, Python, Java, SQL, JavaScript, TypeScript, PHP
- Web Development: HTML, CSS, AngularJS, ReactJS, Node.js, NextJS, Flask, Bootstrap, Tailwind CSS, REST APIs, GraphQL, WebSockets
- AI/ML: CNN, TensorFlow, Keras, Scikit-learn, Pandas, NumPy, StandardScaler, Matplotlib, Seaborn.
- Cloud Platforms: GCP, AWS
- Database Management: MySQL, MongoDB
- Development Tools: Eclipse, Visual Studio Code, Sublime Text, Google Colab, GitHub, Gerrit, Jira, Confluence, Jupyter Notebook, Anaconda, PyCharm, MATLAB, Postman, UCD, Jenkins, Trello, Kanban, Splunk, SonarQube, Figma, Latex
- Testing and Security Tools: SAST, DAST, ZAP, NVDA, CCA, Axe Dev tool
- Certifications: AWS Academy Cloud Foundations
- Achievements: AI-GeoInfo Crop Recommendation Framework Using Decision Tree Classifier and Flask-based GeoAPI – Accepted at 3rd International Conference on Mechatronics and Smart Systems (CONF-MSS 2025) for publication in Applied and Computational Engineering (ACE).

EDUCATION

University of East London (UEL) **September 2023 - May 2025**

MS in Computer Science with Industrial Placement **Percentage:** 82%

Coursework: Advanced Software Engineering, Cloud Computing, Artificial Intelligence, Dissertation

University College of Engineering and Technology for Women (UCETW) **June 2017 - July 2021**

Bachelor of Technology in Computer Science and Engineering **Percentage**: 85%

WORK EXPERIENCE

Graduate Teaching Assistant | University of East London **January 2025 – Present**

- Conducted technical lab sessions integrating theory with hands-on application to enhance student understanding and engagement in complex technical concepts.
- Devised structured study materials and refined lab curricula to simplify technical content, improving clarity and maximizing student learning efficiency.
- Assessed projects, graded exams, and ensured academic integrity through meticulous evaluation, fostering critical thinking and problem-solving skills.
- Partnered with faculty to implement innovative teaching methodologies and troubleshoot lab activities, creating an interactive and effective learning environment.

Research Assistant | University of East London **September 2024 – Present**

- Collected, catalogued, and safeguarded over 7000 data points across AI and Cloud, refining research integrity and securing data confidentiality for reliable analysis.
- Analysed initial datasets using Python, providing preliminary insights that contributed to early-stage research findings and hypothesis validation.
- Coordinated project meetings and managed schedules, fostering effective team collaboration and ensuring adherence to initial project timelines.
- Drafted 7 manuscript outlines and 5 progress summaries, communicating early research outcomes to stakeholders and preparing for future publications.

Software Engineer | Tata Consultancy Services, India **July 2021 – September 2023**

- Engineered responsive banking applications using ReactJS to improve user experience, resulting in a 25% increase in mobile user engagement and receiving client appreciation for delivering an intuitive interface.
- Diagnosed and resolved production issues through effective debugging, minimizing incident response time by 30%, improving application stability.
- Crafted reusable components with robust validation mechanisms, streamlining development processes and cutting development time for new features by 20%.
- Automated the regulatory process by building a web application and scripts, curtailing manual effort by 40% and perfecting operational efficiency, which gained client praise for lowering compliance workload.
- Transitioned version control from Gerrit to GitHub, optimizing code review processes and lifting collaboration, leading to a 15% improvement in code deployment speed.
- Verified application functionality through comprehensive manual and functional testing, certifying 98% accuracy in delivered solutions and meeting client expectations for high-quality delivery.
- Strengthened the testing team's capabilities by conducting desktop and mobile testing, drafting test cases, and achieving accessibility compliance (CCA, NVDA), which increased test coverage by 35%.
- Strengthening facilitated knowledge transfer sessions for new team members, boosting team productivity by 15% while upgrading overall team engagement and collaboration.

PROJECTS

Real-Time GeoCropAI

- Programmed and trained a Decision Tree Classifier with 92% accuracy, using soil composition and environmental data to deliver location-specific crop recommendations. Improved crop suitability analysis precision by 15% in agricultural applications.
- Implemented a Flask-based GeoAPI for real-time geospatial analysis, processing user coordinates to retrieve soil and climatic data. Reduced retrieval time by 25% using GeoPy for accurate crop recommendations.
- Developed a responsive web interface using HTML, CSS, and Flask, enabling users to enter geographic coordinates and view crop recommendations. Increased user interaction and engagement by 40%.
- Improved system performance by implementing caching for API calls and asynchronous data processing, decreasing data retrieval time by 30%. Enhanced scalability and responsiveness for large geospatial datasets.

Real-Time Weather Tracker App

- Built a real-time weather-tracking web application with React, allowing users to view current weather conditions for any searched location using a public API.
- Integrated Open WeatherMap APIs to fetch and update weather data every 30 minutes, confirming users receive the latest conditions without page reloads.
- Implemented historical weather reports with Chart.js, displaying temperature and precipitation data over the past 5 days to provide users with weather trends.
- Designed a mobile-first responsive UI to optimize the app's performance across all devices, resulting in a fast, accessible, and visually appealing user experience.

Real-Time Cold Storage Management Web Application

- Created an inventory management system in PHP and MySQL for cold storage, adjusting space allocation based on temperature, which reduced inventory search time by 30%.
- Spearheaded an administrative portal with user access control and barcode management, enabling warehouse staff to manage inventory and facilitating cross-team collaboration for timely delivery and integration.
- Deployed the application on an XAMPP server with automated backups, amplifying retrieval speed by 20% and diminishing downtime by 15%, assuring reliable access to real-time temperature and humidity data from IoT sensors.

HOBBIES and INTERESTS

Skilled pencil sketch artist with a focus on capturing emotion and detail in every piece. Dedicated to social responsibility, with plans to lead initiatives supporting old age homes and orphanages, merging artistic talent with a commitment to creating a positive community impact.

REFERENCES

Request upon request.