

SURYA PUNNA

Houston, Texas, USA / punnasurya2000@gmail.com / +1 (832) 661-7817 | [portfolio](#) | [LinkedIn](#) / [github](#)

Objective

To leverage my expertise in full-stack web development, cloud technologies, and data science to design scalable and intelligent solutions that drive innovation and efficiency. With a strong foundation in AI/ML, programming, and data visualization, I aim to develop impactful applications that enhance decision-making and business growth. Passionate about continuous learning and collaboration, I seek to contribute to cutting-edge projects that align with organizational goals and technological advancements.

Skills

Programming Languages & Databases: Python, C#, Java, C++, R, MySQL, Oracle, Microsoft SQL Server, PostgreSQL, MongoDB, DynamoDB.

Web Development: HTML, CSS, JavaScript, jQuery, React, TypeScript, Node.js, Express, Bootstrap, Tailwind CSS, Angular, Postman, Django, Flask, Fast API, Streamlit, dotnet core, dotnet framework.

AI & Machine learning: Pandas, TensorFlow, Keras, PyTorch, Scikit-learn, NLTK, OpenCV, Generative AI, NLP, LLMs, Recommender Systems, Machine Learning, Feature Engineering.

Tools: VS Code, Jupyter Notebook, MS Office (word, PowerPoint, Excel, Teams), PowerShell, Linux.

Cloud Computing & Devops: AWS (EC2, S3, RDS, Lambda, IAM, EKS, CloudFormation), Git, GitHub, Docker, Azure, GitHub Actions, CI/CD, Kubernetes.

Data Analysis & Visualization: Matplotlib, Tableau, Power BI, Statistics, Seaborn, Plotly, SAS, Excel.

Experience

Software Development Engineer, Verisk – Hyderabad, India July 2022 – December 2023

- Deployed applications on AWS, leveraging services such as EC2 and S3, and implementing CI/CD pipelines to reduce deployment cycles by 25% and improve scalability.
- Implemented a CI/CD pipeline using 25% AWS (Code Pipeline, EC2, S3, Lambda), Accelerated deployment processes, achieving a 30% improvement in speed and increasing reliability.
- Automated email generation workflows, Minimized manual workload by 40%, improving team productivity and communication using Angular and .NET Framework.
- Created a tool using Angular and .NET Framework to automate test case creation and synchronization with Gherkin syntax, Reduced repetitive tasks by 40%, boosting overall operational efficiency.
- Leveraged CI/CD, Infrastructure-as-Code (Terraform), and BDD workflows to enhance software quality, ensure alignment with business requirements, and optimize project delivery.

Automation QA intern, Verisk – Hyderabad, India January 2022 – June 2022

- Enhanced **Automation Frameworks**, accelerating test execution by 40%, minimizing manual intervention by **50%**, and boosting defect detection rates.
- Increased test coverage by 35% through automated test case development, cutting regression testing time by 20%.
- Developed unit and integration tests using NUnit, achieving a 95% pass rate and decreasing post-deployment defects by 30%.
- Integrated automated tests into CI/CD pipelines, reducing deployment failures by 20% and shortening release cycles by 15%.
- Identified and resolved 80+ critical bugs, enhancing software stability and reducing fixed turnaround time by 40%.

DSA Mentor, Smart Interviews – Hyderabad, India December 2020 – April 2021

- Mentored 200+ students in data structures and algorithms (DSA), enhancing problem-solving skills and increasing coding efficiency by 30%.
- Led 20+ mock interviews and weekly coding sessions, contributing to 70% of mentees landing internships and job offers in top tech firms.

Projects

- **Airbnb Market Trends Analysis** | *Tableau, Data Visualization, Data Analysis*
Developed a Tableau dashboard analyzing 10,000+ listings in NYC, uncovering seasonal pricing shifts, occupancy trends, and high-demand neighborhoods, leading to 15% improved revenue predictions for hosts.
- **Emotion-Aware Chatbot Using Seq2Seq** | *Python, NLP, Machine Learning, Pretrained Models*
Engineered an intelligent chatbot capable of recognizing and responding to human emotions using cutting-edge NLP techniques. Integrated RoBERTa for sentiment analysis and Seq2Seq LSTM architectures for context-aware, empathetic response generation, enhancing conversational depth and engagement.
- **Ride Easy Taxi** | *Node.js, React, Express.js, MySQL, REST APIs, JWT Authentication, AWS RDS*
A full-stack taxi management system built with Node.js and React, integrating Express.js APIs for optimized communication, improving booking efficiency, and reducing server response times by 25%
- **Intelligent Construction Accident Severity Prediction System** | *Python, Machine Learning*
Formulated a predictive model leveraging Random Forest, XGBoost and LightGBM to classify construction accidents as fatal or non-fatal. Implemented feature engineering, data preprocessing, and hyperparameter tuning, achieving 92% accuracy and enabling proactive risk assessment for enhanced safety management.
- **Online Store Sales Insights** | *Tableau, Data Visualization, Data Analytics*
Built an interactive dashboard processing 500K+ transactions, identifying top-performing regions, customer spending habits, and sales trends, driving 20% better inventory planning and targeted marketing strategies.
- **Team Dashboard** | *HTML, CSS, JavaScript, Bootstrap, TypeScript, Angular, Node.js, AWS, Microsoft SQL Server*
Designed a real-time automation dashboard, cutting data retrieval time by 30 seconds per query. Integrated CI/CD pipelines on AWS, optimizing deployments and boosting efficiency by 20%.
- **Machine Utilization Monitoring** | *HTML, CSS, JavaScript, Tailwind CSS, .Net Core, PowerShell*
Created a CPU and RAM monitoring system, automating weekly reports and enhancing performance on Windows IIS, reducing manual reporting time by 30%.
- **Movie Recommendation System** | *Python, R, Streamlit, Machine learning*
Constructed a hybrid recommendation system integrating collaborative and content-based filtering, improving recommendation accuracy by 15%. Built an R-based backend with a Streamlit web app, reducing response time by 30% and enhancing user engagement. Processed 100K+ movie ratings, optimizing personalized suggestions.

Certifications & Achievements

- AWS Certified Solutions Architect – Associate (Amazon Web Services) June 2024
- Awarded a full 100% government scholarship for undergraduate studies in acknowledgment of academic achievements.
- Certified by HackerRank and Udemy in Java, Python, and Problem Solving, illustrating mastery of cutting-edge technologies.
- Certified in Microsoft Technology Associate (MTA) for Python by Microsoft, demonstrating proficiency in Python programming and academic excellence.
- Awarded a full 100% government scholarship for undergraduate studies in acknowledgment of academic achievements.
- Engaged in immersive learning of software development experience with industry giants such as Microsoft and LinkedIn through Virtual Experience Programs.
- Solved 700+ problems on LeetCode, achieving a rating of 1555 and ranking in the top 39.25% among all users, demonstrating strong problem-solving and algorithmic skills.
- Recognized with the Verisk Outstanding Performer Award for delivery of Product within tight deadlines to create impactful outcomes.

Education

University of Houston

Master of Science in Data Science

May 2025

- GPA: 3.94/4.0.

• **Relevant Coursework:** Machine Learning, Data Science, Data Mining, Natural Language Processing, Data Analysis and Visualization, Data Engineering, Database Management Tools.

Gokaraju Rangaraju Institute of Engineering and Technology

Bachelor of Technology in Electronics and Communication Engineering

May 2022

- GPA: 9.36/10.0.

• **Relevant Coursework:** Algorithms, Data Structures, Operating Systems, Databases, Machine Learning, Python, Java, Computer Networks, Cloud Computing and Artificial Neural Networks.