Sree Sai Bhargav Sarvepalli

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SUMMARY

Full-stack Software Engineer and MS Computer Science student (GPA: 3.74) with experience building scalable web applications and deploying ML-powered services. Proficient in React, Next.js, TypeScript, Node.js, FastAPI, and AWS, with strong foundations in data structures, system design, and REST APIs. Experienced in developing end-to-end products from 0→1 with a focus on performance, scalability, and user experience.

EDUCATION

University of Maryland, Baltimore County **Aug 2024 - May 2026**

Master's, Computer Science

- **GPA:** 3.74
- **Coursework:** Advanced Computer Architecture, Introduction to Machine Learning, Introduction to Data Science, Natural Language Processing, Design and Analysis of Algorithms, Malware Analysis, Service-Oriented Computing, Quantum Computing

B V Raju Institute of Technology **Sep 2020 - Jun 2024**

Bachelor of Technology, Computer Science

- **GPA:** 3.37
- **Coursework:** Data Structures, Operating Systems, Computer Networks, Cloud Computing, Distributed Computing, Software Engineering, Database Management Systems

TECHNICAL SKILLS

- **Frontend**: React.js, Next.js, TypeScript, JavaScript (ES6+), HTML, CSS, Tailwind CSS, Bootstrap
- **Backend**: Node.js, Django, Django REST Framework, FastAPI, REST APIs, Microservices
- **AI / LLM**: HuggingFace Transformers, mBERT, XLM-R, LightGBM, NLP pipelines
- **Databases**: PostgreSQL, MySQL, MongoDB
- **Cloud & DevOps**: AWS (EC2, S3), Docker, CI/CD, Git, GitHub, GitLab
- **Core CS**: Data Structures, Algorithms, System Design, Scalable Architectures

EXPERIENCE

Software Developer **Mar 2026 - Present**

American Technology Initiative Inc. *St. Petersburg, Florida | Remote*

- Developed a containerized full-stack web application using React, Django, and PostgreSQL, enabling scalable volunteer management workflows
- Built and optimized RESTful APIs with Django REST Framework, improving real-time data access and reporting
- Designed modular backend architecture and Docker-based environments, reducing setup time and improving deployment efficiency
- Collaborated in a distributed team using GitLab, code reviews, and CI/CD workflows to maintain code quality
- Debugged and resolved production issues, improving application reliability and performance.

Graduate Teaching Assistant **Aug 2025 - Jan 2026**

University of Maryland, Baltimore County *Baltimore County, Maryland*

- Guided 40+ students through malware analysis, debugging, and system-level programming using Linux, GDB, and reverse-engineering tools, resulting in higher lab completion rates and stronger student proficiency
- Diagnosed environment and system issues, improving lab success rates and reducing setup failures.
- Evaluated assignments using a secure-coding rubric and provided detailed feedback, leading students to adopt safer coding practices and decreasing reported security flaws in later projects

Technical Content Writer **Aug 2024 - Sept 2024**

JavaTpoint *Noinda, India*

- Authored 36+ technical articles on Java, Python, DSA, and web development; improved clarity and comprehension through stepwise explanations and code examples.
- Mentored 50+ learners by simplifying complex computer science concepts and reviewing coding exercises.
- Collaborated with editors to maintain high content accuracy and increase site engagement through accessible, well-structured tutorials.

Web Development Intern **May 2023 - Jul 2023**

Codsoft *New Delhi, India | Remote*

- Built responsive UI components with HTML, CSS, Bootstrap, and Django, enabling faster page rendering and a consistent look across browsers
- Improved page load performance and responsiveness across devices through optimized styling and lazy loading.
- Translated product requirements into reusable front-end components using Node.js and Git, streamlining development and ensuring consistent functionality across the site.

RESEARCH & PROJECTS

Pulsar Star Detection as a Service using Machine Learning **Aug 2025 - Dec 2025**

- Built a cloud-deployed ML service using FastAPI + LightGBM (99% accuracy, ROC-AUC 0.973) to classify pulsar candidates from telescope features.
- Designed microservices for ingestion, preprocessing, inference, and results storage using Docker, PostgreSQL, and Redis.
- Developed a Streamlit dashboard supporting single + batch predictions, EDA visualizations, and SHAP-based interpretability.
- Implemented SMOTE, Optuna tuning, and scalable pipelines deployed on AWS EC2 with CI-ready GitHub workflow.
- Technologies: Python, FastAPI, Streamlit, LightGBM, Optuna, Scikit-learn, SMOTE, Docker, PostgreSQL, Redis, AWS EC2, Git/GitHub

Cross-lingual sentiment analysis using transfer learning and the best transformer model **Feb 2025 - May 2025**

- Engineered multilingual emotion-classification workflows using mBERT, XLM-R, and XLNet; evaluated zero-shot vs. fine-tuned models on multi-domain datasets (GoEmotions, Amazon Reviews, MasakhaNER).
- Designed reproducible experiments and benchmarking pipelines using Accuracy, F1, and BLEU to assess cross-lingual generalization.
- Improved model robustness through optimized preprocessing, tokenization strategies, and hyperparameter tuning.
- Technologies: Python, PyTorch, HuggingFace, Scikit-learn

Chest X-ray Image Classification using CNN **Sep 2024 - Jan 2025**

- Built and trained CNN models to classify X-rays into COVID-19, Pneumonia, and Normal categories; achieved AUC scores of 0.99, 0.98, and 0.97, respectively.
- Applied data augmentation, EDA, and GPU-accelerated training to improve generalization and reduce overfitting on imbalanced datasets.
- Technologies: TensorFlow, Keras, OpenCV

Blockchain-Powered Academic Record Access Control System **Dec 2023 - Apr 2024**

- Designed a three-layer distributed architecture for secure student certificate management using Ethereum smart contracts.
- Implemented access-control logic enabling users to approve/deny data requests; built a full-stack interface with authentication and role-based flows.
- Strengthened reliability and data integrity through decentralized storage and fault-tolerant consensus mechanisms.
- Technologies: Solidity, Node.js, JS, HTML/CSS

College Clubs Enrollment System **May 2022 - Jul 2022**

- Developed a multi-role web system (students, moderators, admins) enabling secure enrollment, club creation, and activity tracking.
- Built server-side form validation, SQL-backed persistence, and intuitive UI flows for end-users.
- Technologies: PHP, SQL, JavaScript

CERTIFICATES

- AWS Cloud Virtual Internship – AWS Academy
- Robotic Process Automation Virtual Internship – Blue Prism University
- Complete Interview Preparation Course - GeeksforGeeks
- Web Development Course – Udemy
- Problem Solving and Java Certificates - HackerRank

INVOLVEMENT & ACHIEVEMENTS

- **Food Service Worker at Chick-fil-A:** Developed customer service, teamwork, and time-management skills in a fast-paced setting.
- **Organized Central Level Hackathon:** with a team of 10 student organizers in my college's National Level Technical Symposium, "Promethean."
- **Smart India Hackathon:** Led a team of six participants.