

VISHNU SAI KOTHA

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Summary

Full-stack developer with a strong foundation in object-oriented programming and agile methodologies. Proven success in collaborating with cross-functional teams to design scalable features and streamline workflows, such as a GPT-powered grading system and an enhanced case management interface. Recognized for delivering well-documented, robust code that improves efficiency and functionality. Currently pursuing a Master's in Computer Science, with a commitment to developing quality software solutions.

Skills and Interests

- **Technical:** React, Spring Boot, LangChain, Python, FastAPI, GenAI, AWS, Java, SQL, TypeScript, JavaScript, Angular, HTML, CSS, OOP, JSON, REST/SOAP, PostgreSQL
- **Tools & Platforms:** OpenAI, Google Drive API, Jira, ServiceNow, Trello, VS Code, MS Teams, Office 365, Microsoft Face API, Pinecone, GitHub
- **Soft:** Agile Methodology, Team Leadership, Cross-Functional Collaboration, Effective Communication

Work Experience

Stony Brook University

Jan 2025 – Present

Graduate Assistant — Stony Brook, USA

- Pioneered a full-stack GPT-powered grading system using React, FastAPI, and Postgres, incorporating object-oriented programming practices and Agile methodologies to reduce grading time by 50%.
- Engineered endpoints and workflows for processing project notes with a Postgres database, ensuring maintainability through clear documentation and adherence to coding standards across 13 rubrics.
- Deployed the application using AWS App Runner for hosting, managed containerization with AWS ECR, and utilized AWS RDS (PostgreSQL) for scalable and reliable data storage.
- Implemented chat-with-document functionality using a RAG-based model with Pinecone for vector storage and metadata containing 15+ fields for efficient contextual retrieval.

Danske IT / Infosys

Jan 2022 – Jul 2024

Senior Systems Engineer

- Developed a case management dashboard, automating workflows and improving compliance tracking, reducing work hours by 18%, and increasing case closures by 400%.
- Led the migration of a large-scale Angular v9 application to a React-based micro-frontend architecture, enhancing scalability, modularity, and performance.
- Designed and optimized 10+ scalable UI components for AML and FCLM systems, ensuring compliance, maintainability, and seamless user experience across diverse customer segments.
- Enhanced data integrity by implementing robust input validations and API checks, reducing irregularities by 80% and improving system reliability.
- Received GEM (Going Extra Mile) recognition for leading high-impact projects, reducing debugging time by 30%, and improving Agile workflows, achieving 100% sprint success.
- Collaborated with 5+ cross-functional teams (product, compliance, and engineering) to deliver user-centric solutions, driving alignment between business goals and technical implementation.

Education

Stony Brook University

Aug 2024 – Dec 2025

Masters in computer science

Coursework: Operating Systems, HCI, Data Science Fundamentals, Computer Networks

Academic Projects

AI Math Support Tool for Students with Disabilities

- Developed a web-based application using React, Python, and OpenAI API to demonstrate how students with 7 types of learning disabilities process math word problems.
- Simulated student thinking patterns and common mistakes based on selected disability to reflect realistic learning challenges.
- Implemented a tutor interface that provides clear explanations and support strategies tailored to each student's simulated behavior.

Composite Metric Model for NFL First-Down Rates

- Engineered advanced metrics like Completion Percentage Over Expected (CPOE) and Explosiveness Score, achieving an 82% model accuracy and ROC AUC score of 0.92 by balancing precision and generalizability.
- Compared more than 10 parameters and composite metrics in machine learning models, optimizing feature engineering for enhanced interpretability and predictive performance.

Certifications and Publications

- AWS Cloud Practitioner
- Machine Learning Implementation for Health Insurance [Link](#)

Extracurricular

Stony Brook GSO — President

- Advocate for graduate student interests by engaging with university leadership on key issues affecting over 7,000 students.
- Represent the graduate student body in policy discussions, administrative meetings, and governance reforms to drive institutional improvements.
- Lead initiatives to improve academic, social, and professional support systems for graduate students across departments.