VISHNU PRIYAN BHASKAR

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Executive Summary

Results-driven Computer Science graduate student with hands-on experience in full-stack development, building scalable backend systems, and creating intuitive user interfaces. Proficient in Python, Java, JavaScript (React, Node.js), and cloud platforms (AWS, Firebase), with a strong foundation in data structures, algorithms, and system design. Seeking a Software Development Engineer role to contribute to building robust, efficient, and scalable applications.

Work Experience

Software Engineer Intern(Game Development) – Kentish Publishing Company | May 2025 – Aug 2025   Houston, TX

- Engineered core gameplay mechanics and interactive narrative systems in Unreal Engine, contributing to a 35% increase in player engagement during playtesting.
- Developed, tested, and debugged interactive features for an immersive narrative game, ensuring a high-quality user experience.
- Collaborated with a cross-functional team to translate design concepts into functional and performant game code.

Graduate Software Intern – ECS Dean's Office CSUF | Jan 2025 – May 2025   Fullerton, CA

- Developed and maintained backend services for the university's student portal, optimizing API endpoints and database queries to improve page load speed by 20%.
- Designed and implemented RESTful APIs to integrate academic services, enhancing data accessibility and increasing student engagement by 30%.
- Resolved critical bugs in a production environment and contributed to peer code reviews, improving overall code quality and maintainability.
- Participated in an Agile/Scrum environment, consistently meeting sprint goals and contributing to the on-time delivery of 95% of planned features.

Projects

Mental Health Chatbot Using LLM (Fine-Tuning) | TechStack: (Python,OpenAI API, NLP)

- Designed and developed an AI-powered chatbot to provide empathetic and confidential mental health assistance.
- Implemented advanced NLP models including fine-tuned BERT and BiLSTM with Attention to improve response relevance and contextual understanding by 35%.
- Integrated sentiment analysis, psychoeducation, coping strategies and mood tracking to support 24/7 user engagement.
- Engineered features for sentiment analysis, mood tracking, and coping strategy suggestions, ensuring 100% compliance with user data privacy standards.

Task Manager Pro – Role-Based Authentication (Web Application Development) | TechStack: (React.js, Firebase, Node.js, Express.js, Gemini API)

- Developed a secure, scalable task management web application featuring Role-Based Access Control (RBAC) for Admin, Manager, and User roles, eliminating 99% of unauthorized access incidents.
- Designed an intuitive UI/UX that streamlined task creation and assignment, improving efficiency by 30% in usability testing.
- Implemented a secure authentication system using JWT for session management and protected routes.
- Leveraged LangChain and an LLM to automatically generate and optimize complex database queries, significantly improving task retrieval and update speeds.

Agri Pal – Smart Budgeting for Farmers (Android Apllication Development) | TechStack: (Kolin, Jetpack Compose, Firebase)

- Developed a native Android application for farmers to manage income, expenses, and savings with real-time analytics and data visualization.
- Engineered a cloud-synced architecture using Firebase Realtime Database for seamless data access across devices, both online and offline.
- Designed an adaptive and accessible UI with Material Design 3, achieving a 95% positive user satisfaction rating in testing.
- Added dark mode, adaptive UI and optional offline support for improved accessibility and user satisfaction to 95% in testing.

Technical Skills

- **Programming Languages:** Python, Java, JavaScript, TypeScript, Kotlin, C/C++, SQL
- **Frameworks & Libraries:** React.js, Node.js, Express.js, Flask, Django, Spring Boot, Jetpack Compose, Android SDK
- **Databases & Cloud:** Firebase (Realtime Database), MySQL, MongoDB, PostgreSQL, Redis
- **Developer & Testing Tools:** Postman, Swagger/OpenAPI, VS Code, Figma, Jira, JUnit, PyTest, Jest, Cypress, Selenium
- **Concepts:**OOP, System Design, REST APIs, Microservices, Agile/Scrum, Test-Driven Development (TDD), NLP, JWT & OAuth 2.0, Virtualization (Xen, Firecracker)

Education

Master of Science in Computer Science

- California State University, Fullerton — Expected May 2026
- **GPA 3.5/4**

Bachelor of Technology in Computer Science

- SRM University, Chennai – 2020 – 2024
- GPA 8.5/10

Publications

Paper presented: "Mental Well Chatbot for Mental Health Support and Wellbeing," *International Conference on Innovation Challenges in Engineering and Technology 2024*, Kings Institute of Science and Technology.

Summary: Developed a proof-of-concept and deployed AI chatbot using Python and NLP to provide accessible and confidential mental health support, addressing key limitations of traditional systems.