VENKATA PEETHAMBARA SAI ABHIJITH GENTELA

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PROFESSIONAL SUMMARY

Results-driven Software Engineer with hands-on experience in **Swift**, **SwiftUI**, JavaScript, TypeScript, Python, and Node.js. Skilled in building production-ready, user-focused **iOS applications** and cross-platform solutions with modern frameworks, foundational model integrations, and **Apple platform optimization**. Proven success delivering scalable, high-performance applications with strong software engineering fundamentals including data structures, algorithms, and object-oriented design. Experienced in **environmental data processing**, **coastal research systems**, concurrent processing, rapid debugging, and cross-functional collaboration in fast-paced environments.

SKILLS

Programming Languages: Java, Python, JavaScript (ES6+), C++, SQL, Object-Oriented Programming (OOP), Data Structures & Algorithms
Software Systems Design: RESTful APIs, Microservices Architecture, Cross-Platform Development, Apple Platform Integration, UI/UX Patterns
Frontend Technologies: SwiftUI, React Native, React.js, A HTML, CSS, iOS Development
Backend Technologies: Java SpringBoot, Flask, Node.js, Express.js, Java Spring MVC, Python (Django, Flask, FastAPI)
Databases & Storage: MySQL, PostgreSQL, MongoDB, Redis, Amazon S3
Cloud & Deployment: AWS (EC2, S3, Lambda)
DevOps & CI/CD: Git, Jenkins, GitHub Actions, GitLab CI/CD, Azure DevOps, Docker, Kubernetes
Testing & API Documentation: JUnit, Selenium, Cypress, Jest, Mocha, Mockito, Postman, Swagger (OpenAPI)
AI & Machine Learning: OpenAI Whisper API, OpenAI , Hume API, ElevenLabs API, LLMs

PROFESSIONAL EXPERIENCE

Software Intern- Noranalytos **Sept 2024– Aug 2025**

- Engineered production-ready mobile and web applications using React Native, JavaScript, and Python with focus on cross-platform compatibility and native performance optimization, applying object-oriented design patterns and data structures to reduce feature delivery time by 20%.
- Architected scalable backend services with Node.js and TypeScript implementing concurrent processing patterns and RESTful APIs with JWT authentication, applying advanced algorithms and debugging techniques to increase system reliability by 30%.
- Led cross-functional collaboration with design and product teams, implementing agile development methodologies and explaining complex technical concepts clearly, contributing to 95% on-time delivery through effective problem-solving and analytical thinking.
- Developed intelligent automation solutions integrating foundational models and machine learning algorithms with Python, implementing on-device data processing and sensor integration patterns, reducing manual processing by 40% through advanced algorithmic optimization.

Graduate Research Assistant- Texas A&M University, Corpus Christi **Jan 2024– Aug 2024**

- Designed and implemented reusable iOS framework components using SwiftUI and Combine, applying Apple design patterns and Core Location integration to reduce code redundancy by 35% across coastal environmental monitoring iOS applications.
- Built scalable platform modules integrating foundational models and environmental data processing algorithms for Gulf Coast research, optimizing concurrent data structures for real-time coastal sensor data analysis and marine environmental monitoring, accelerating processing by 50% through advanced algorithmic design leveraging TAMUCC's coastal location expertise.
- Developed framework libraries and packages for environmental science research applications, implementing modular architecture patterns for oceanographic data collection and coastal ecosystem monitoring systems, leading to 100% adoption across research teams and improved development efficiency.
- Applied rapid debugging and problem-solving approaches to resolve performance issues in distributed environmental monitoring systems, utilizing advanced algorithms and concurrency patterns to reduce average resolution time by 30% and improve coastal data analysis performance by 20%.

Software Engineer - Exposys Labs **May 2022 – Dec 2022**

- Architected cross-platform applications using React Native and Node.js, implementing object-oriented design patterns and concurrent processing for user management systems, applying mobile-first development methodologies and component-based architecture.
- Developed high-performance backend services with optimized APIs for scalability and responsiveness, applying rapid debugging techniques and iterative algorithmic problem-solving while maintaining code quality throughout fast development cycles.
- Engineered automated deployment pipelines using CI/CD tools (Jenkins, GitLab CI/CD) with automated testing practices, reducing release cycle time by 30% and improving application reliability through continuous quality assurance and production delivery optimization.
- Prototyped local iOS application to evaluate Apple ecosystem integration, implementing native iOS design patterns and Apple Human Interface Guidelines compliance, gaining hands-on experience with Xcode development environment and Apple platform optimization for enhanced user experience matching Apple's ecosystem standards.

PROJECT

Campus Companion **Jan 2024 – May 2024**

- Developed and deployed full-stack mobile application using SwiftUI for iOS frontend and Java SpringBoot backend, implementing user registration, role-based access control (RBAC), meal plan management, parking plan management, AI-powered course recommendations, attendance tracking, and secure payment gateway with JWT authentication and Stripe API.
- Led a team of 11 members in developing a cross-platform application using SwiftUI and Java SpringBoot, implementing complex algorithms for user management, AI-powered course recommendations, and secure payment processing, earning the Best Project Award for innovative problem-solving and technical excellence in mobile development. Integrated Amazon S3 for secure file storage and iOS frameworks for native device functionality, enabling scalable storage of user-generated content, profile images, and course-related documents while optimizing for Apple platform performance and user experience guidelines.

EDUCATION

Texas A&M University, Corpus Christi | **Jan 2023 – Aug 2024**
Master of Science in Computer Science GPA: 3.5/4.0