MARATHI PRIDHVINATH CHOWDARY

Software Technical Lead

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Professional Summary

- **7+ years** of experience in **Full-stack development** using **Java, Python, MEAN, and MERN stacks**, specializing in **scalable web and enterprise applications**.
- Expertise in **Agile (SCRUM, TDD, Pair Programming) and Waterfall methodologies** for **end-to-end software development lifecycle (SDLC)**.
- **Proficient in front-end development** with **React.js, Angular (2+ to 16), Vue.js, Backbone.js**, and frameworks like **Bootstrap, SASS, and LESS** for responsive UI/UX design.
- Developed **modern, dynamic single-page applications (SPAs)** leveraging **Angular 16's advanced features, NGRX, Rxjs, and Redux** for state management.
- **Strong backend development skills** with **Node.js, Express.js, Python (Django, Flask), and .NET Core**, focusing on RESTful APIs and microservices architecture.
- **Expert in JavaScript (ES6+), TypeScript, AJAX, JSON, and jQuery**, implementing complex UI components and API integrations.
- Developed robust CI/CD pipelines using **GitHub Actions**, **Jenkins**, and **SonarQube** for automated testing, code analysis, and deployment of **Node.js** applications.
- Enforced **TDD** and BDD practices with **Jest**, **Mocha**, and **Chai** to maintain 95%+ code coverage in **Node.js** services.
- Used **TypeORM** and **Sequelize** for data access layers in **Node.js**, enabling smooth interaction with relational databases like **Oracle** and **PostgreSQL**.
- Implemented logging, monitoring, and alerting using **CloudWatch**, **ELK**, and **Winston** in all production **Node.js** services.
- Hands-on experience with **NoSQL (MongoDB, Cassandra, Neo4j) and SQL (PostgreSQL, MySQL, SQL Server)** for efficient data modeling and optimization.
- Developed and optimized **full-stack MEAN/MERN applications**, integrating **OAuth, JWT authentication, and third-party APIs** for enhanced security.
- Provided end-to-end support for IBM Rational toolsets including **DOORS, Synergy, and Change**, ensuring uptime and optimal performance for embedded software teams.
- Installed, configured, and upgraded **enterprise software** on both **Windows and UNIX/Linux servers**, maintaining compliance and stability across environments.
- **Cloud and DevOps experience** using **AWS (Lambda, S3, DynamoDB, IAM), Docker, Kubernetes, Terraform, and CI/CD pipelines** for scalable deployments.
- **Test-driven development (TDD) expertise** with **Jasmine, Mocha, Karma, Cypress, and Jest**, ensuring **high test coverage and application stability**.
- Knowledgeable in **cross-platform mobile development** using **React Native and Redux**, with experience in hybrid applications using Ionic and Cordova.
- **Proven ability to lead teams**, mentor junior developers, conduct code reviews, and **optimize application performance through best coding practices**.

Technical Skills

Programming Languages & Frameworks	Languages	JavaScript (ES6+), TypeScript, Python, PHP, SQL, PL/SQL, Ruby, Java, C#
	Web Frameworks	Angular, AngularJS, React.js, Vue.js, Next.js, Backbone.js, Node.js, Express.js, .NET Core, Ruby on Rails

	Mobile Frameworks	Kotlin, Swift, React Native, Cordova, Ionic
Web & Mobile Technologies	Frontend	HTML5, CSS3, Bootstrap, Tailwind CSS, SASS, LESS, JSON, SCIM 2.0, SEO
	Mobile Platforms	Android SDK, iOS (Swift), Expo CLI, Progressive Web Apps (PWA)
Databases	Relational	SQL Server, MySQL, PostgreSQL, Oracle
	NoSQL & Graph	MongoDB, DynamoDB, Cassandra, Redis, Neo4j
Cloud & DevOps	Cloud Platforms	AWS (Lambda, S3, EC2, API Gateway, RDS, IAM, DynamoDB), Azure, GCP, Heroku, Digital Ocean
	Containerization	Docker, Kubernetes, Terraform
	CI/CD	GitHub Actions, Jenkins, Maven, Gradle, ANT, Gulp, Grunt
Testing & Quality Assurance		Jest, Mocha, Cypress, Jasmine, Karma, Chai, Selenium, SonarQube
Development Tools & IDEs		VS Code, Visual Studio, Android Studio, Xcode, Atom, Jupyter Notebook
Version Control & Workflow		Git, GitHub, GitLab, Bitbucket, Jira, Confluence, Agile (Scrum, Kanban, TDD), Waterfall
Monitoring & Logging		Amazon CloudWatch, ELK Stack, ServiceNow, CyberArk

Experience

T-Mobile   (Remote) Dallas, TX
Software Technical Lead   Feb 2024 - Present

Project: At **T-Mobile**, I led the **Developing** and enhancing the **Ethernet Backhaul System** by developing scalable, responsive UIs and integrating backend APIs for improved performance.

- Developed **single-page applications (SPA)** using **React.js, Redux, and React Router**, improving UI responsiveness and user experience.
- Led the **React 16 to 17+ migration** for the **Ethernet Backhaul System**, optimizing performance and maintainability.
- Built full-stack solutions using **C#, ASP.NET Core, and SQL Server**, ensuring 100% on-time project completion.
- Integrated **AWS (IAM, Lambda, DynamoDB, S3, API Gateway) and Azure Services**, improving system scalability and reducing downtime.
- Reduced **application latency by 20%** by optimizing **PMRL configurations** and improving process efficiency.
- Designed **custom reporting modules** in **VB.NET**, enabling real-time data insights for stakeholders.
- Automated repetitive processes within **Zendesk and SailPoint**, streamlining network operation ticket management.
- Implemented **JWT Token-based authentication** and **OAuth integrations**, enhancing security for user access management.
- Managed **Informix DB** operations including performance tuning, user access, and troubleshooting to support DCM and requirements management tools.
- Handled **Distributed Change Management (DCM)** setup and issue resolution, facilitating version control for Electric Power Steering systems.
- Supported and automated tasks using **DXL (DOORS Extension Language)** for requirements management and integration with other lifecycle tools.

- Designed and developed scalable RESTful APIs using **Node.js**, **Express.js**, and **MongoDB**, serving millions of requests daily.
- Built microservices using **Node.js** and **Docker**, orchestrated via **Kubernetes** for high availability and fault tolerance.
- Created secure user authentication and authorization with **Node.js**, **JWT**, **OAuth 2.0**, and **Passport.js**.
- Implemented GraphQL APIs using **Node.js**, **Apollo Server**, and **TypeScript**, reducing data over-fetching by 60%.
- Built scalable cross-platform mobile apps using **Kotlin Multiplatform Mobile (KMM)** and **Swift**, reusing shared **Java/J2ME modules** for legacy compatibility.
- Integrated **Node.js** services with **Redis** for caching and session management, improving API performance by 40%.
- Migrated legacy **J2ME mobile applications** to modern **Android (Kotlin)** and **iOS (Swift)** platforms, improving performance and UI/UX.
- Developed robust app architectures with **MVVM and Clean Architecture**, integrating **Java-based backend logic** and porting reusable **J2ME components**.
- Created shared business logic in **Kotlin**, accessible in **iOS (Swift)** apps via Kotlin Native, utilizing existing **Java services** from J2ME apps.
- Modernized enterprise J2ME apps into unified Kotlin/Swift mobile apps, preserving backend integrations using **Java libraries** and J2ME-style message parsing
- Developed responsive UIs using **React, Vue.js, AngularJS, HTML5, CSS3, Bootstrap, and Tailwind CSS**.
- Conducted **code reviews** and enforced best practices for **React HOC, Hooks, ES6, Redux, and modular architecture**.
- Designed and integrated **RESTful APIs** to facilitate seamless frontend-backend communication.
- Improved **CI/CD pipelines** using **GitHub Actions, Jenkins, and Docker**, accelerating release cycles.
- Ensured **95% test coverage** with **Jest, Mocha, and Cypress**, improving system reliability.
- Developed **RBAC models** and managed **SailPoint IdentityIQ workflows**, strengthening identity and access management security.
- Collaborated in **Agile (Scrum) teams**, coordinating with DevOps, security, and network operations for system enhancements.
- Integrated **GraphQL** to optimize data fetching, reduce API response times, and improve application performance.
- Designed and implemented **WebSocket (Socket.io)** for real-time communication in network monitoring applications.
- Migrated legacy components to **Next.js**, improving SEO performance and reducing page load times.
- Developed and maintained **microservices architecture**, improving scalability and modularity of backend services.
- Implemented **Azure AD authentication and MFA** for enterprise security, ensuring compliance with corporate standards.
- Refactored legacy **class-based React components** into **functional components with Hooks**, improving maintainability and performance.
- Implemented **lazy loading** and **code splitting** using **React Suspense and Webpack**, reducing initial load times by 30%.
- Developed **custom reusable UI components** and maintained a **component library**, ensuring consistency across applications.
- Designed and optimized **SQL queries and stored procedures**, improving database performance and reducing query execution time.
- Integrated **third-party APIs and SDKs** to extend application functionality and improve user engagement.

Environments
React.js, Redux, Next.js, Vue.js, Vuex, AngularJS, JavaScript, TypeScript, HTML5, CSS3, SASS, Bootstrap, Tailwind CSS, Node.js, Express.js, GraphQL, WebSockets (Socket.io), RESTful APIs, , MongoDB, DynamoDB, OAuth, JWT, Azure AD, MFA, AWS (IAM, Lambda, Kotlin, Selenium, S3, API Gateway, Route 53, DynamoDB, EC2, RDS), Azure Services, Jenkins, GitHub Actions, Docker, Kubernetes, CI/CD, Jest, Mocha, Cypress, Jira, Git, Bitbucket.

Walmart   (Remote) Chicago, IL
Senior Software Engineer   July 2023 – Dec 2023

Project: Developed a responsive **web and mobile application** for T-Mobile's internal teams, streamlining store operations and employee workflows.

- Developed **responsive web applications** using React.js and Angular 16, ensuring cross-browser compatibility and accessibility.
- Designed and built **mobile applications** using Ionic and Cordova for seamless cross-platform functionality.
- Created **reusable UI components** and optimized state management using Redux and NGRX for React and Angular applications.
- Integrated **RESTful APIs and GraphQL** to improve data retrieval and optimize application performance.
- Implemented **push notifications and real-time updates** using WebSockets and Firebase for mobile and web applications.
- Developed a **modular architecture** using Angular's lazy loading and React's dynamic imports to improve performance.
- Built event-driven systems using **Node.js**, **RabbitMQ**, and **Kafka**, enabling real-time communication between services.
- Developed CI/CD pipelines for **Node.js** applications using **GitHub Actions**, **Jenkins**, and **Docker** for seamless deployments.
- Deployed serverless functions using **Node.js** on **AWS Lambda** and **Azure Functions**, minimizing infrastructure cost.
- Created full-stack applications with **Node.js** backend and **React.js/Next.js** frontend, enabling SSR and improved SEO.
- Implemented input validation and API security in **Node.js** apps using **Joi**, **Helmet.js**, and **rate-limiting middleware**.
- Designed and implemented **authentication and authorization** using **OAuth 2.0**, **JWT**, and Firebase Authentication.
- Developed and maintained **custom Angular directives and pipes** for reusable UI logic.
- Implemented **server-side rendering (SSR) in React with Next.js** to enhance **SEO** and initial load performance.
- Utilized **Ionic's native plugins** to access device features like the **camera, GPS, and storage** for an enhanced mobile experience.
- Created a **real-time dashboard** using **D3.js and Chart.**js for data visualization and analytics.
- Built **offline support** using service workers and **IndexedDB** to enhance usability in low-network conditions.
- Integrated **third-party APIs** like **Zendesk and Google Maps** for seamless user interactions and workflow automation.
- Developed **custom form validations** using **Angular Reactive Forms and React Hook Form** to enhance user input accuracy.
- Responded to and resolved incidents and service requests through **ServiceNow ITSM**, adhering to SLAs and ensuring user satisfaction.
- Managed **user provisioning, access control, and password resets** across Rational tools and enterprise systems using secure workflows.
- Built shell scripts and **Windows/Unix automation scripts** to streamline repetitive maintenance tasks and improve system efficiency.
- Implemented real-time data sync across iOS and Android apps using **Kotlin Coroutines**, **Swift async/await**, and **Java-based HTTP services** adapted from J2ME.
- Built secure authentication modules using **Swift CryptoKit**, **Kotlin Encryption APIs**, and legacy **Java crypto logic** from J2ME systems.
- Used **Jetpack Compose** and **SwiftUI** for dynamic UI development while integrating **Java business logic** and **J2ME data sources**.
- Created a cross-platform chat system with offline sync using **SQLite (Kotlin)**, **CoreData (Swift)**, and **J2ME message queues**.
- Integrated REST and GraphQL APIs in Kotlin and Swift apps using **Retrofit**, **Ktor**, and **Apollo**, while maintaining **Java-J2ME compatibility** for older clients.
- Implemented **role-based access control (RBAC)** for securing web and mobile applications.
- Worked on **mobile responsiveness** using **Flexbox, CSS Grid, and Bootstrap** for a consistent user experience.
- Optimized **mobile app performance** using **lazy loading, tree shaking, and asynchronous rendering** techniques.
- Configured **Jenkins and GitHub Actions** for automated **CI/CD** deployment of web and mobile applications.
- Deployed the application on **AWS (S3, Lambda, API Gateway, EC2) and GCP**, ensuring scalability and reliability.
- Used **Docker and Kubernetes** for containerization and managing deployments efficiently.
- Conducted **unit and integration testing** using **Jest, Mocha, Chai, Cypress, and Karma** for React and Angular applications.

- Implemented **secure API communication** using **Axios, Fetch API, and proper CORS** handling.
- Integrated **Ionic Capacitor** for improved performance and enhanced native functionality in mobile applications.
- Created **progressive web apps (PWA)** using **React and Angular** to enable offline access and mobile-friendly experiences.
- Followed **Agile** methodology, actively participating in **daily stand-ups, sprint planning, and retrospectives** using Jira.

Environments

React.js, Angular 16, Ionic, Cordova, Redux, NGRX, GraphQL, REST APIs, Firebase, OAuth 2.0, JWT, Next.js, D3.js, Chart.js, IndexedDB, WebSockets, Firebase Authentication, Flexbox, CSS Grid, Bootstrap, AWS (Lambda, S3, API Gateway, EC2), GCP, Docker, Selenium, Kubernetes, Jenkins, GitHub Actions, Jest, Mocha, Chai, Cypress, Karma, Axios, Fetch API, PWA, Zendesk, Google Maps API, Ionic Capacitor.

Amazon
Hyderabad, IND

Senior Software Engineer
Aug 2018 – Sep 2022

Project: Developed and maintained a **web application** for Amazon's HR payroll system, focusing on **employee timecard management**, payroll automation, and real-time tracking.

- Developed a **scalable payroll management system** using **MEAN (MongoDB, Express.js, Angular 16, Node.js)** and **MERN (MongoDB, Express.js, React.js, Node.js)** stacks.
- Built **mobile applications** for employee timecard management using **Ionic and Cordova**, ensuring cross-platform compatibility.
- Designed a **real-time payroll tracking dashboard** using **React.js, Angular 16, and D3.js**, improving payroll visibility for HR teams.
- Integrated **RESTful APIs and GraphQL** to fetch employee attendance, payroll, and benefits data seamlessly.
- Implemented **secure authentication** using **OAuth 2.0, JWT, and Firebase Authentication** for employee logins.
- Developed custom payroll workflows using Node.js microservices, automating payroll processing and reducing manual errors.
- Deployed and configured **client/server-based Rational tools**, ensuring compatibility and network stability across geographically distributed teams.
- Wrote unit and integration tests for **Node.js** services using **Jest**, **Mocha**, and **Supertest**, ensuring 95% test coverage.
- Configured and maintained database layers in **Node.js** using **Sequelize** with **PostgreSQL** and **Mongoose** with **MongoDB**.
- Designed REST and GraphQL APIs in **Node.js**, documented using **Swagger (OpenAPI)** and **GraphQL Playground**.
- Built real-time features like notifications and chat with **Node.js**, **Socket.IO**, and **Redis Pub/Sub** architecture.
- Optimized performance of **Node.js** apps using **PM2**, **Cluster module**, and **load balancing** on **NGINX**.
- Integrated file upload and cloud storage functionality using **Node.js**, **Multer**, and **AWS S3**.
- Created admin dashboards and analytics tools using **Node.js**, **EJS**, **Chart.js**, and **MongoDB Aggregation Framework**.
- Handled multi-tenant architecture in **Node.js** with dynamic database routing and scoped API tokens.
- Implemented DevSecOps practices in **Node.js** projects using **Snyk**, **ESLint**, and secure dependency management.
- Supported **Electric Power Steering source code change workflows** via Rational Change and DCM, enabling accurate and traceable commits.
- Developed a unified analytics module compatible with both platforms using shared **Kotlin logic**, with **Java-based tracking systems** reused from J2ME.
- Refactored critical modules from **J2ME MIDlets** into shared Kotlin code for seamless use in both **Android and iOS** apps.
- Built BLE and location-based services in **Swift and Kotlin**, leveraging existing **Java logic** and adapting **J2ME NMEA parsers**.
- Integrated cloud services like **Firebase and AWS Amplify** with cross-platform apps, ensuring smooth interaction with **Java/J2ME-based APIs**.
- Created common testing strategies using **JUnit (Java)**, **Kotlin Test**, and **XCTest (Swift)** to validate shared functionality ported from J2ME.
- Used **Redux (React) and NGRX (Angular)** for efficient state management in complex UI workflows.

- Implemented **role-based access control (RBAC)** to ensure HR personnel had secure access to sensitive payroll data.
- Migrated the **legacy payroll system to a microservices architecture**, improving scalability and maintainability.
- Designed and implemented **dynamic forms and validations** using Angular's **Reactive Forms** and **React Hook Form** for payroll data entry.
- Integrated **third-party payroll APIs** (ADP, Paychex) for automated salary calculations, deductions, and tax compliance.
- Automated complex HR onboarding workflows using **Power Automate**, reducing manual intervention by 75%.
- Designed scalable integration flows in **Workato** to streamline data sync between Salesforce and NetSuite.
- Led end-to-end business process automation using **Camunda**, improving SLA compliance by 40%.
- Implemented rule-based decision engines in **Camunda BPM**, reducing operational errors by 60%.
- Created dynamic workflows in **Microsoft Power Automate** for IT service requests, decreasing ticket resolution time by 35%.
- Implemented **SSL/TLS encryption and HTTPS protocols** to safeguard payment data during transit across all transaction endpoints.
- Integrated **webhooks and callback listeners** to track real-time payment events, refunds, and chargebacks across multiple gateways.
- Used **OAuth2 and API key-based authentication** for secure communication between application servers and payment providers.
- Built dynamic, responsive UI components to handle **multi-currency and region-specific payment flows** securely across web and mobile platforms.
- Built a **real-time notification system** for payroll updates using **WebSockets and Firebase Cloud Messaging (FCM)**.
- Developed **data synchronization with Amazon RDS, MongoDB, and PostgreSQL**, ensuring real-time payroll record updates.
- Created **employee self-service portals** for leave requests, tax form downloads, and pay stub retrieval using React and Angular.
- Configured **continuous integration and deployment (CI/CD)** pipelines using **Jenkins, GitHub Actions, and Docker** for automated builds.
- Implemented **push notifications and geolocation tracking** in mobile apps using **Ionic Capacitor and Cordova plugins**.
- Designed a **progressive web application (PWA)** using React and Angular to allow offline payroll access.
- Optimized **Angular's performance** by enabling **lazy loading, Ahead-of-Time (AOT) compilation, and virtual scrolling** for large employee datasets.
- Integrated **Amazon Web Services (AWS)** for cloud-based payroll processing, including **S3 (storage), Lambda (automation), and DynamoDB (data storage)**.
- Developed **real-time analytics dashboards** using **Chart.js and Power BI** for payroll insights and reporting.
- Created a **hybrid mobile application** using **Ionic and Angular** to manage timecards, approvals, and payroll adjustments.
- Used **Express.js and Node.js** to build backend APIs, enabling seamless integration with Amazon's HR database.
- Automated payroll **data processing and reporting** using AWS **Lambda, Glue, and Redshift**, improving payroll efficiency by 30%.
- Developed unit and integration tests using **Jest, Mocha, Cypress, and Karma**, achieving **95% test coverage**.
- Worked in **Agile methodology**, participating in daily stand-ups, sprint planning, retrospectives, and JIRA issue tracking.

Environments

React.js, Angular 16, Ionic, Cordova, MongoDB, PostgreSQL, Redux, NGRX, REST APIs, GraphQL, Firebase, OAuth 2.0, JWT, Next.js, D3.js, WebSockets, AWS (S3, Lambda, RDS, DynamoDB), Jenkins, GitHub Actions, Docker, Jest, Mocha, Cypress, Express.js, Node.js, Selenium, Power BI, Zendesk, Paychex API, ADP API, Terraform, Kafka, AWS Glue, AWS Redshift, Elasticsearch, Firebase Cloud Messaging.

Cosmosoft   Hyderabad, IND

Jr. Software Engineer   Jan 2018 – Aug 2018

Project: Developed a scalable e-commerce platform using the **MERN stack** (MongoDB, Express.js, React, Node.js) with robust UI/UX, efficient data management, and secure authentication.

- Developed a scalable **e-commerce platform** using the **MERN stack** (MongoDB, Express.js, React, Node.js) with a focus on performance, security, and user experience.
- Built a dynamic and responsive **user interface** using **React.js, Angular, HTML5, CSS3, Bootstrap, and JavaScript**, enhancing user engagement and accessibility.
- Designed and optimized **RESTful APIs** with **Express.js and Node.js** for seamless communication between the client and server.
- Managed NoSQL integrations with **MongoDB**, **DynamoDB**, and **Cassandra**, using **Mongoose** and **native SDKs** in **Node.js**.
- Delivered secure and efficient APIs with **Node.js + TypeScript**, enforcing validation with **Joi** and sanitization middleware.
- Applied role-based access control (RBAC) and logging in **Node.js** APIs using **AWS IAM**, **SailPoint**, and secure audit logging tools.
- Developed Lambda-backed APIs using **Node.js**, using **API Gateway** for RESTful endpoints and **Step Functions** for workflow orchestration
- Implemented **MongoDB** as the primary database for efficient storage, retrieval, and management of product, order, and user data.
- Integrated **JWT-based authentication** for secure user login, authorization, and session management.
- Developed a **shopping cart and checkout system**, integrating **secure payment gateways** to facilitate seamless transactions.
- Developed ETL pipelines using **Alteryx** for marketing data consolidation, accelerating campaign insights.
- Integrated APIs with **Workato** to automate lead distribution from web forms to CRM, improving sales follow-ups.
- Designed BPMN workflows in **Camunda Modeler** for procurement processes, enhancing cross-team transparency.
- Containerized the application using **Docker** and deployed on **Kubernetes (GCP)** for scalable and efficient cloud hosting.
- Leveraged **AWS IAM** for secure access control and **AWS S3** for storing and managing product images and assets.
- Utilized **Redux** for state management in React applications, ensuring a smooth and predictable data flow.
- Improved **page load speed by 15%** through performance optimizations, including lazy loading, code splitting, and database indexing.
- Integrated secure **payment gateways (Stripe, PayPal, Razorpay)** with tokenized transactions and PCI-DSS compliance.
- Designed and implemented **end-to-end payment flows** using secure APIs, including 3D Secure (3DS) authentication and fraud prevention mechanisms.
- Developed reusable modules for **secure credit/debit card processing**, supporting major gateways like Authorize.net and Square.
- Implemented business logic and backend functionalities using **C# and VB.NET**, streamlining workflows and enhancing system efficiency.
- Integrated **third-party APIs** for real-time data exchange, improving platform capabilities and automation.
- Developed a **React Native mobile application**, ensuring a responsive and seamless mobile shopping experience.
- Applied **automated testing** methodologies using **Jest, Karma, and Selenium** to ensure code stability and functionality.
- Utilized **Git** for version control and implemented **CI/CD pipelines** with **Jenkins** for continuous integration and deployment.

Environments
MongoDB, Express.js, React.js, Node.js, Angular, TypeScript, Redux, Bootstrap, JavaScript, Passport.js, JWT, Nodemon, Mongoose, REST APIs, C#, VB.NET, AWS IAM, S3, Docker, Kubernetes, GCP, Jenkins, Git, Jest, Karma, Selenium, Postman, JIRA.

Education

GVSU
Grand Rapids, Michigan

Masters in comsuter science
2023

- Completed badge courses in various areas, including **Cybersecurity**, **Database Management, Information Systems Management, Software Design and Development, Software Engineering, and Web and Mobile Computing**, enhancing knowledge and skills in these domains.
- Developed a comprehensive e-commerce website using the **MERN (MongoDB, Express.js, React, and Node.js) stack,** showcasing proficiency in full-stack web development.
- Created multiple mobile applications with cross-platform functionality using **React Native and Expo CLI**, demonstrating expertise in mobile app development.
- Developed interactive games using **Python, Pygame**, and tile-based game development techniques, showcasing skills in game development.
- Utilized the **Angular framework** to develop **gaming websites**, combining programming skills and web development knowledge.
- Worked as a **tutor** for 11th and 12th-grade students, specializing in mathematics and physics, providing academic support and guidance to enhance their understanding and performance in these subjects.

JNTUH
Hyderabad, IND

Bachelor's in Electronics and Communication Engineering
2018

- Achieved India-wide first place for a **3D printer project**, demonstrating technical expertise and innovation in the field.
- Served as a **guest lecturer** for a **robotics workshop**, sharing knowledge and practical insights with aspiring students.
- Worked as a **student brand ambassador**, representing the university, and promoting various programs and initiatives.
- Participated in a satellite communication workshop at **ISRO (Indian Space Research Organization),** gaining valuable insights into the field of space technology and communication systems.

AI & ML Implementations

Network Anomaly Detection:
Designed an unsupervised ML model to detect unusual traffic in enterprise Ethernet backhaul systems. Deployed alerts using AWS Lambda + SNS.

AI Script-to-Video Conversion Tool:
Developed a pipeline using NLP and text-to-speech to convert scripts into animated videos: integrated image generation APIs and voiceover tools.

Crypto Market Trend Predictor:
Built an LSTM-based time-series model using historical crypto data to forecast short-term price movements. Utilized TensorFlow and pandas for analysis.

Voice Cloning for Regional Accents:
Trained a Tacotron 2-based model on speech samples to generate synthetic speech with regional inflections. Used for creating narrations with custom voices.

Chatbot with Contextual Memory:

Built a conversational assistant using LangChain and GPT-4 with contextual memory, integrating with a custom database for personalized support responses.

Fake News Detector:

Built an NLP classification model to identify misinformation in trending topics using labeled datasets and fine-tuned BERT.

Health Chatbot for Diet & Exercise:

Developed a chatbot that asks health-related questions, interprets symptoms, and suggests meals/exercises. Used rule-based flows combined with GPT-3 API for contextual answers.

Phishing Email Classifier:

Trained a supervised ML model using email text, links, and metadata to classify emails as phishing or legitimate. Achieved high accuracy with logistic regression and BERT.

Activities and Interests

Problem-Solving Challenges, Side Projects, AI & Machine Learning, Mentoring & Teaching, Hiking, Skiing, Travel, Music, Movie