Karthik Edhala | Software Engineer

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SUMMARY

- Software Engineer with 3+ years of experience, proficient in JavaScript (ES6+), TypeScript, Python, and Java, delivering robust software components with 98% code reliability, enhancing feature delivery across Agile teams in mid-to-large scale enterprise environments.
- Built dynamic user interfaces using React.js, Next.js, and Vue.js, increasing user engagement by 27% through improved load times and accessibility compliance using HTML5, CSS3, Tailwind CSS, and Bootstrap.
- Engineered RESTful and GraphQL APIs with Node.js, Express.js, and Flask, powering scalable backend services for over 100K monthly active users; implemented WebSocket connections to support real-time data streaming.
- Designed and optimized relational and NoSQL databases including PostgreSQL, MySQL, MongoDB, and Redis, leading to 40% faster query execution; implemented PL/SQL and DynamoDB for data-driven business logic.
- Leveraged AWS (EC2, Lambda, S3, RDS, and API Gateway) and EKS to deploy containerized microservices, achieving 99.99% uptime SLA with scalable autoscaling and infrastructure-as-code using CloudFormation and Terraform.
- Containerized workloads and orchestrated clusters with Kubernetes, improving system reliability across staging and production environments; implemented proactive logging and alerting with CloudWatch.
- Built intelligent features using TensorFlow, PyTorch, and Scikit-learn, including fraud detection and recommendation models, improving user retention by 18% and reducing false positives by 23%.
- Integrated OpenAI APIs, LangChain, and Hugging Face to implement AI copilots and chatbot solutions, decreasing customer response time by 52% and automating up to 30% of manual support queries.
- Applied Git, GitHub, and JIRA for version control and agile project tracking, improving team collaboration velocity by 35% across cross-functional teams distributed over 3 time zones.
- Worked with tools like Visual Studio Code, IntelliJ, Postman, and Jupyter Notebook to streamline debugging, API testing, and data analysis; followed TDD and modular design principles across all projects.

TECHNICAL SKILLS

Language:	JavaScript (ES6+), TypeScript, Python, Java, Go (Golang), SQL, C++, C#
Frontend Development:	React.js, Next.js, Vue.js, HTML5, CSS3, Tailwind CSS, Bootstrap, D3.js
Backend Development:	Node.js, Express.js, Flask, Django, Spring Boot, .NET Core, RESTful APIs, GraphQL, WebSockets
Database Management:	PostgreSQL, MySQL, MongoDB, Redis, DynamoDB, PL/SQL
Cloud Platforms & DevOps:	AWS (EC2, S3, Lambda, RDS, API Gateway, DynamoDB, EKS, SQS, SNS, CloudFormation, CloudWatch), Docker, Kubernetes, Jenkins, GitHub Actions, Terraform, CI/CD Pipelines
AI/ML & LLM:	TensorFlow, PyTorch, Scikit-learn, OpenAI API, LangChain, LangGraph, Hugging Face
Data Engineering:	Apache Kafka, Apache Airflow, Snowflake, PySpark, ETL Pipelines, Event-Driven Architecture
Tools & Methodologies:	Git, GitHub, JIRA, Visual Studio Code, IntelliJ, Postman, Jupyter Notebook, Agile (Scrum), Microservices Architecture, Test-Driven Development (TDD), Design Patterns

EXPERIENCE

Glorium Technologies, New Jersey **Aug 2025 - Present**
Software Engineer

- Overseeing the entire Software Development Life Cycle (SDLC) for client projects, effectively incorporating Agile methodologies into every phase, from initial requirements gathering through design, development, testing, and deployment.
- Integrating third-party services, APIs, and libraries into the application architecture to enhance capabilities and improve workflows.
- Leading code reviews to ensure adherence to coding standards, best practices, and performance improvements. Introduced unit tests, integration tests, and automated testing procedures to uphold code quality and reduce defects.
- Diagnosing and resolving performance issues by optimizing database queries, improving frontend rendering speeds, and implementing caching strategies to boost application efficiency.
- Leading development of RESTful JSON services using ASP.NET Core integrated with SQL Server backend.
- Developing scalable front-end solutions using React JS and integrating them with APIs for dynamic rendering.
- Delivering Python scripts for automation and support tasks including data processing and log file analysis.
- Developing and maintaining applications in .NET Core with strong backend support using Entity Framework and LINQ.
- Evaluating legacy data formats such as flat files, XML, and outdated relational databases to assess compatibility with modern systems and integration requirements.
- Utilizing SSIS package configurations and parameterization to facilitate flexibility and reusability.
- Managing deployments using Azure DevOps with CI/CD pipelines and performed code reviews using Git.
- Writing and optimizing stored procedures, views, and functions in SQL Server for application needs.
- Building custom dashboards and widgets for internal users using .NET MVC and HTML5/CSS.
- Developing internal tools for project tracking, using a mix of Python, React, and Node.js.
- Participating in sprint planning and backlog grooming using Azure Boards.

Environment: ASP.NET Core, .NET Core, .NET MVC, C#, Entity Framework, LINQ, SQL Server, SSIS, T-SQL, React.js, HTML5, CSS3, JavaScript, Node.js, Python, RESTful APIs, JSON, XML, Flat Files, Git, Azure DevOps, CI/CD, Azure Boards, Visual Studio, VS Code, Postman, Agile, Scrum.

Glorium Technologies, New Jersey **Jan 2025 – July 2025**
Software Engineer (Intern)

- Designed and maintained full-stack web applications using JavaScript (ES6+), TypeScript, Python, and Go, improving platform load times by 38% and reducing bug rates by integrating rigorous linting and unit test coverage.
- Spearheaded UI revamp of customer dashboard using React.js, Next.js, and Tailwind CSS, delivering a 22% increase in daily user retention and reducing bounce rate on core product pages by 17%.
- Integrated hybrid storage with PostgreSQL, DynamoDB, and Redis for time-series analytics and caching layers, enhancing query throughput by over 2.5x and reducing latency for high-concurrency endpoints.
- Migrated 12 microservices to AWS using EC2, Lambda, RDS, and EKS, provisioning infrastructure with Terraform and CloudFormation, cutting deployment time from hours to under 12 minutes.
- Created 30+ reusable CI/CD pipelines using GitHub Actions, Jenkins, and CloudWatch, embedding rollback logic and test gates to reduce release failures by 40% across QA and staging environments.
- Streamlined large-scale data ingestion pipelines with Apache Kafka, Airflow, and Snowflake, automating ETL on 8 TB of data monthly with dynamic partitioning and schema tracking.
- Applied best practices in Agile (Scrum) and TDD, driving code reviews and sprint grooming across distributed teams; improved sprint velocity from 72 to 108 story points over 4 quarters.
- Monitored and optimized cost/performance trade-offs on AWS using CloudWatch dashboards and custom Terraform policies, saving 18% in monthly infrastructure costs without performance impact.

  Environment: JavaScript (ES6+), TypeScript, Python, Go, React.js, Next.js, Tailwind CSS, Node.js, Express.js, WebSockets, REST APIs, GraphQL, PostgreSQL, DynamoDB, Redis, AWS (EC2, Lambda, RDS, EKS), Terraform, CloudFormation, GitHub Actions, Jenkins, CloudWatch, CI/CD, Apache Kafka, Apache Airflow, Snowflake.

Sage Softtech, India **Jan 2021 – Jul 2023**
Software Engineer

- Designed simple classifiers with Scikit-learn for internal automation (e.g., auto-tagging support tickets), increasing manual team productivity by ~15%.
- Participated in daily agile standups and sprint retrospectives, using JIRA to track and groom tickets while ensuring stories met acceptance criteria.
- Assisted in developing ETL scripts using PySpark and scheduled data pipelines with Apache Airflow to automate daily ingestion of ~100k log records from internal tools.
- Supported server upgrades and patches for internal services deployed via .NET Core and hosted on AWS EC2, improving reliability and security posture.
- Collaborated with QA teams using VS Code, IntelliJ, and Jupyter Notebook to fix test cases and improve code coverage by over 30% in two quarters.
- Integrated monitoring with CloudWatch and implemented basic alerts for S3 and Lambda failures, helping reduce incident resolution time from 2 hours to under 30 minutes.
- Optimized internal tooling performance using Go (Golang) to parallelize API calls during data syncs, lowering execution time by over 40%.
- Maintained CI/CD pipelines with Jenkins and automated infrastructure provisioning with CloudFormation, supporting rapid rollouts with minimal human error.

  Environment: Scikit-learn, Agile, JIRA, PySpark, Apache Airflow, Redis, MongoDB, .NET Core, AWS EC2, VS Code, IntelliJ, Jupyter Notebook, CloudWatch, Amazon S3, AWS Lambda, Go (Golang), TensorFlow, OpenAI API, Jenkins.

EDUCATION

➢ **Master of Science in Computer Science | May 2025**
Clark University; Worcester, MA

➢ **Bachelor of Science in Computer Science | June 2022**
Siddharth Institute of Engineering & Technology; Puttur, AP

PROJECTS

BotNest – Customizable Chatbot Platform | 2025 | LINK

- Developed a platform for users to create and deploy AI chatbots using OpenAI, Redis, PostgreSQL, and WebSocket's with a responsive Next.js frontend.

AI Agent – Customer Response Tool | 2024 | LINK

- Built an AI agent using LangGraph and Watsonx that integrates tools like Google Books and Wikipedia to deliver precise, real-time responses via SSE and Next.js.

Smart Document Processing Platform | 2024 | LINK

- Created a PDF Q&A system using LangChain, Pinecone, and Stripe that allows context-aware document search with tiered access and real-time UI.

CERTIFICATION

- **AWS Certified Developer – Associate | Jun – 2025 | LINK**