

Ganesan Santhanam

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SOFTWARE DEVELOPER & SOFTWARE ENGINEER

Experienced software developer with 4 years of expertise in designing, developing, and delivering high-performance applications that drive organizational growth. Proficient in C#, Python, and JavaScript, with a strong track record of automating workflows to boost efficiency and streamline operations. Skilled in collaborating with cross-functional teams to translate complex requirements into effective technical solutions, ensuring seamless integration and successful project outcomes. Dedicated to enhancing software architecture and systems to ensure scalability and compliance with industry standards. Passionate about leveraging innovative technologies to optimize internal networks and applications, consistently delivering solutions that align with business objectives and regulatory requirements.

TECHNICAL SKILLS

Frontend: HTML, CSS, JavaScript, React.js, AngularJS, Bootstrap, jQuery
Backend: .Net (ASP.NET Core, MVC), NodeJS, Express.js, Django, Spring Boot, Python, C#, VB.NET
Databases & Analysis: PostgreSQL, Microsoft SQL Server, Oracle, MonogoDB, Cassandra, Redis
Cloud: Amazon Web Services (AWS), Microsoft Azure, Azure Blob Storage, AWS S3
Others: Google Vision API, Apache Kafka, Elasticsearch, RESTful, GraphQL, Git, GitHub, Twilio

PROFESSIONAL EXPERIENCE

Software Developer | Maxil Technology Solutions Inc. - Oak Brook, IL

May 2024 – Present

Designed, developed, and delivered computer programs through robust code in multiple programming languages to implement software applications. Identified potential bugs, defects, and issues to verify software functionality with regular upgrades to remain compatible with changing technologies and environments.

- Engineered a resume-building feature using AngularJS and SQL Server, allowing users to generate and customize resumes, resulting in a 60% faster completion rate.
- Increased user engagement by 75% and enhanced skill development by 50% through developing a dynamic learning system with AngularJS, MongoDB, and OpenAI APIs, delivering personalized quizzes and updated content daily.

Software Developer | BestRx Pharmacy - Oak Brook, IL

Aug. 2023 – April 2024

Developed and delivered software systems, applications, and tools by collaborating with cross-functional teams to ensure quality assurance. Debugged software issues through intensive troubleshooting, documentation of code and processes, and system architecture improvements.

- Built an automated insurance claims system, reducing manual processing by 50%, improving claims accuracy by 35%, and increasing operational efficiency by 25%.
- Enhanced operational efficiency by 40% by creating and implementing a lookup screen to track request history and manage incoming transfer requests for prescriptions.
- Boosted outreach by 67% through the design, customization, and deployment of a targeted alert and promotional mail screen for customer groups, with a particular focus on pharmacists.

Data Management Analyst (Level 2) | University of Florida - Gainesville, FL

June 2023 – Aug. 2023

Conducted comprehensive data modeling, analysis, and visualization to present trends in clear, user-friendly dashboards. Prepared detailed reports on data findings and patterns, ensuring that all data models, reports, and projects met regulatory compliance standards.

- Developed a React and TypeScript dashboard with Chart.js for longitudinal data visualization, boosting research efficiency by 80% and integrating comment boxes for inference annotation.
- Maximized participation and response rates by 210% by implementing automated alerts via Twilio's messaging and email services, significantly reducing missed patient appointments.

Intern - Software & Machine Learning Engineer | Autoreview.ai - Gainesville, FL

May 2022 – Dec. 2022

Performed in-depth research to develop data models and design solutions that introduced new features and updates to resolve complex business challenges. Applied data science and software engineering methodologies to build and optimize machine learning systems.

- Reduced versioning errors by 50% by creating an automated document versioning system using Azure Blob Storage and Django, streamlining internal workflows.
- Improved audit trail accuracy by 40% by implementing document history tracking with Node.js and MongoDB, enhancing document retrieval and precision.
- Achieved a 94% improvement in keyword extraction accuracy while ensuring regulatory compliance by developing an API using Google Vision, TensorFlow R-CNN, and GloVe NLP.

PROFESSIONAL EXPERIENCE CONTINUED...

Graduate Assistant | University of Florida - Gainesville, FL

April 2022 – May 2022

Collaborated with professors and researchers to test research tools, encode, analyze, and manage research data across multiple projects. Supported administration, organized events, and handled specialized tasks such as data analysis and coding on research initiatives.

- Developed APIs for payment processing and user-license management using Node.js, Express, and MongoDB, integrating Stripe as the payment gateway.
- Established secure authentication with JWT, increased revenue and catalyzed stakeholder engagement and customer acquisition.

Senior System & System Engineer | Infosys - Chennai, TN, India

July 2018 – July 2021

Engineered system architectures to enhance the efficiency and reliability of computer systems while overseeing and maintaining computer networks to minimize downtime, inefficiencies, and bugs. Led the technical aspects of system engineering projects from conception to delivery, specializing in network systems, management tools, software, and hardware.

- Streamlined response times by 40% and endpoint testing time by 50% while improving code readability by 30% through restructuring system architecture using domain-driven design (DDD) and dependency injection in .NET.
- Resolved SQL Server slowness by implementing asynchronous processing and caching in .NET, reducing database load by 50% and improving performance by 40%.
- Migrated over 118 SSRS reports to Power BI, transferring data from SQL Server 2005 and Oracle to SQL Server 2017, demonstrating SQL Server Analytics proficiency and enhancing reporting efficiency.

NOTABLE PROJECTS

Simple Reddit

Jan. 2022 – April 2022

Optimized API by implementing periodic rating functions for user profiles, posts, and comments, significantly reducing MongoDB database polling. Improved image and file handler with advanced compression techniques, doubling API response time efficiency.

Skills: MongoDB, Data Pipeline, REST API, Golang, UI/UX

Super Resolution

Jan. 2022 – April 2022

Authored a comprehensive perceptual acceptance score metric to evaluate SRGAN, SRCNN, and ESPCN models, using a custom loss function and uniform architecture, trained over 20-100 epochs on a 50K dataset. Integrated a preprocessing layer to enhance model validity, reducing errors and increasing accuracy by analyzing both programmable and non-programmable factors.

Skills: TensorFlow, Python, Databases

Cache Simulator

Jan. 2022 – April 2022

Developed a cache system simulator to analyze the performance of LFU, LRU, and LPSU policies by varying parameters such as file size (10-1000MB), user traffic (10-60K), bandwidth, and cache space. Collected data through simulations and provided users access to snapshots via custom command-line queries, resulting in a 12% improvement in cache handling efficiency.

Skills: Python, Async Programming, Simulations, Google Colab GPU

Compiler

Aug. 2021 – Dec. 2021

Constructed grammar rules for an OOPS-based statically-typed language and built a compiler from scratch that analyzes and generates bytecode, achieving 85-93% productivity and performance efficiency with an O(N³) parser.

Skills: Java, Threading, Machine Code, JUnit, Testing, Design

Soft Assistant (Road Safety)

Jan. 2018 – May 2018

Architected a CNN-LSTM based computer vision model with 99% accuracy for entity recognition. Incorporated Raspberry Pi for real-time notifications, alerting drivers of proximal pedestrians using OpenCV, Neural Networks, and embedded C programming.

Skills: Python, Design, Arduino, TensorFlow, Async Programming

EDUCATION

Master of Science in Computer Science | University of Florida | 2021 – 2023 | 3.61 / 4.00

Bachelor of Technology in Computer Science | SRM Institute of Science and Technology | 2014 – 2018 | GPA: 8.84 / 10.00