

# Ganesan Santhanam

Software Developer/ Software Engineer

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## Summary

With 4 years of hands-on experience and a Master's degree from the University of Florida, I specialize in designing and implementing scalable, high performance applications. Proficient in Java, Python, and JavaScript, I deliver robust software solutions. My expertise includes microservices architecture and cloud solutions, ensuring seamless integration and deployment. Adept at collaborating with cross-functional teams, I am a focused, career-driven, and curious individual, striving for innovation and excellence in software architecture and development.

## Skills

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

## Experience

### Maxil Technology Solutions | Software Developer

Oak Brook, IL, USA | May 2024 - Present

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

### BestRx Pharmacy Software | Software Developer

Oak Brook, IL, USA | Aug 2023 - Apr 2024

- Built an automated insurance claims system, reducing manual processing by 50%, improving claims accuracy by 35%, and increasing operational efficiency by 25%.
- Implemented a lookup screen to track request history and view incoming transfer requests for prescriptions, enhancing efficiency by 40%.
- Created a customized alert and promotional mail screen for customer groups, tailored to individual pharmacists, boosting outreach by 67%.

### University of Florida | Data Management Analyst (Level 2)

Gainesville, FL, USA | Jun 2023- Aug 2023

- Architected a React and TypeScript dashboard with Chart.js for longitudinal data visualization, boosting research efficiency by 80%, and integrated comment boxes for inference annotation.
- Implemented automated alerts using Twilio's messaging and emailing capabilities to reduce missed patient appointments, increasing participation and response rates by 210%.

### Autoreview.ai | Software and Machine Learning Engineer Intern

Gainesville, FL, USA | May 2022 - Dec 2022

- Developed an automated document versioning system with Azure Blob Storage and Django, reducing versioning errors by 50%.
- Implemented document history tracking with Node.js and MongoDB, improving audit trail accuracy by 40%.
- Architected microservices with Node.js and Django for conflict resolution and workflow management, boosting efficiency by 40% and reducing resolution time by 50%.
- Designed an API with Google Vision, TensorFlow R-CNN, and GloVe NLP, increasing keyword extraction accuracy by 94% and ensuring compliance.

### University of Florida | Graduate Assistant

Gainesville, FL, USA | Apr 2022 - May 2022

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

### Infosys | Senior System and System Engineer

Chennai, TN, India | Jul 2018 - Jul 2021

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

## Education

### University of Florida | 2021 - 2023

Computer Science, M. Sc. | 3.61 / 4.00

### SRM Insitute of Science and Technology | 2014 -2018

Computer Science, B. Tech | 8.84 / 10.00

### **Simple Reddit**

**Jan 2022– Apr 2022**

Optimized API by implementing periodic rating functions for user profiles, posts, and comments, reducing MongoDB database polling. Enhanced image and file handler utilizing better image compression, resulting in a 2x improvement in API response time.

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

### **Super Resolution**

**Jan 2022– Apr 2022**

Authored a robust metric, perceptual acceptance score 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 improve model validity, reducing errors and increasing accuracy by analyzing programmable and non-programmable factors.

Tensorflow, Python, Databases

### **Cache Simulator**

**Jan 2022– Apr 2022**

Created a cache system simulator analyzing the performance of LFU, LRU, and LPSU policies varying the parameters such as file size(10-1000MB), user traffic(10-60K), bandwidth, and cache space. The simulator collected data and enabled users to access simulation snapshots via custom command-line queries showing 12% in efficient cache handling.

Python, Async Programming, Simulations, Google Colab GPU

### **Compiler**

**Aug 2021 – Dec 2021**

Constructed grammar rules that follow prominent OOPS-based statically typical language, built a compiler from scratch that analyses, and generates byte code, retaining productivity and performance to nearly 85-93% with O (N<sup>3</sup>) parser.

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 to alert drivers of proximal pedestrians, utilizing OpenCV, Neural Network, and embedded C programming.

Python, Design, Arduino, Tensorflow, Async Programming