

Projects

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 (N3) parser.

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

Soft Assistant (Road Safety)

Jan 2018 – May 2018

ArchitectedaCNN-LSTMbasedcomputervision 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

Education

University of Florida

Computer Science

3.61

Aug 2021 - May 2023

Master of Science

SRM Insitute of Science and Technology

Computer Science

8.84

June 2014 - May 2018

Bachelor of Technology

References

Deenadhayalan Subramaniam	Ravi Srinivasan
Infosys	University of Florida
Group Project Manager	Dean of Rinker School of Construction
deenadhayalan_s01@infosys.com	sravi@ufl.edu

Ganesan Santhanam

Illinois, United States • +1 (352) 871 3468 • ganesan.santhanam96@gmail.com

Skills

Programming Languages

JavaScript, TypeScript, HTML, CSS, Python, VBA

Databases

PostgreSQL, Microsoft SQL Server, Oracle, MongoDB, Cassandra, Redis, Elasticsearch

Deployment

Amazon Web Services (AWS), Microsoft Azure, Google Cloud Platform (GCP), Docker, Kubernetes, AWS CloudFormation, Azure Resource Manager (ARM), GitLab CI/CD, Azure Blob Storage, Twilio, Google Vision API, R-CNN, GloVe NLP, OAuth2, Stripe, RESTful API, Azure Machine Learning, LLMs, Azure Cognitive or AI Search, Text Embeddings, Vector Search, Chatbots

Frameworks

Django, Spring Boot, Express.js, ASP.NET Core, Vue.js, VB.NET, React, ASP.NET, NodeJS

Frontend

HTML, CSS, JavaScript, React.js, Angular, Bootstrap, jQuery

Profiles

Ganesan Santhanam

Ganesh96

Experience

BestRx Pharmacy Software

Software Developer

Aug 2023 - Apr 2024

Oak Brook, IL, USA

- Built an automated insurance claims system using JavaScript, improving claims accuracy by 35% and 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 II

Jun 2023- Aug 2023

Gainesville, FL, USA

- Architected a dashboard with HTML, CSS, and JavaScript to visualize and record insights for data points in a longitudinal dataset, improving research work efficiency by 80%.
- 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 Engineer Intern, Machine Learning Engineer Intern

May 2022 - Dec 2022

Gainesville, FL, USA

- Developed an automated document versioning system using Azure Blob Storage, reducing versioning errors by 50% and ensuring seamless tracking of document revisions.
- Implemented a comprehensive document history tracking mechanism with SQL Server for detailed activity logging, leading to a 40% improvement in audit trail accuracy and compliance adherence.
- Architected and developed microservices with NodeJS to orchestrate conflict resolution, permit progress tracking, and streamline administrative and user management workflows for an experimental product MVP, achieving a 40% increase in workflow efficiency and a 50% reduction in resolution time.
- Designed an API to optimize document handling, integrating Google Vision API for text conversion, a custom R-CNN model for 24% faster image extraction, and GloVe NLP techniques for a 94% increase in keyword extraction accuracy, ensuring full regulatory compliance.

University of Florida

Graduate Assistant

Apr 2022 - May 2022

Gainesville, FL, USA

- Engineered APIs for payment processing and user-license management using ASP.NET, catalyzing stakeholder engagement and customer acquisition with Stripe as a payment gateway, PostgreSQL for data storage, and implemented secure authentication with OAuth2, increasing revenue.
- Developed web apps with React, reducing manual processing by 50%.

Infosys

Senior System Engineer, System Engineer

Jul 2018 - Jul 2021

Chennai, TN, India

- Collaborated with stakeholders to redesign system architecture, implementing domain-driven design (DDD) and dependency injection, decreasing response times by 40%, improving code readability by 30%, and reducing testing time for endpoints by 50%.
- Resolved slowness issues caused by background tasks hitting the SQL Server 2017 database by implementing asynchronous processing and caching strategies in a .NET project, resulting in a 50% reduction in database load and a 40% improvement in application performance.
- Increased reporting efficiency by migrating 118+ SSRS to Power BI reports and seamlessly transferring data from SQL Server 2005 and Oracle to SQL Server 2017, showcasing proficiency in SQL Server Analytics and report designing skills.

Languages

English

Tamil

Volunteering

U&I Trust

Education Volunteer

Jan 2016 - May 2021

Chennai, TN, India

https://uandi.org.in/volunteer