Ganesan Santhanam

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SUMMARY

Experienced software developer and data management analyst with a passion for leveraging technology to drive innovation and efficiency in diverse industries. Skilled in architecting and optimizing workflows, developing impactful features, and implementing cutting-edge solutions to meet business needs. Committed to continuous learning and growth, with a strong foundation in product development, design thinking, and algorithmic thinking.

EDUCATION

University Of Florida,	MS Computer Science	3.66/4	Aug 2021 – May 2023
SRM Institute of Science and Technology,	B. Tech Computer Science	8.844/10	Jul 2014 – May 2018

WORK EXPERIENCE

BestRx Pharmacy Software | Software Developer | Full Time *Aug 2023 – Present**

- Architected streamlined prescription management workflows with features like fax tagging, server-based database updates, and CSV-to-SQL conversion, catalyzing a 28% enhancement in user experience.
- Spearheaded the development of functionalities enabling automatic insurance claim generation and patient communication, yielding a 12% reduction in workflow duration, and bolstering operational efficiency.

UF College of Nursing, UF | Data Management Analyst II | Full Time *Jun 2023 – Aug 2023*

- Created an API leveraging an optimized database view of longitudinal dataset spanning five years, to generate insightful data visualizations and paginated table view of the datapoints enhancing the efficiency of research work by 300%.
- Implemented a real-time data collection feature leveraging Twilio's messaging and emailing capabilities to reduce missed interactions and enhance response rates, resulting in a substantial improvement of over 150%.

Virtual Review Assist, UF Innovate | ML Engineer | Internship *May 2022 – Dec 2022*

- Engineered API to streamline document handling, enhancing operational efficiency and client satisfaction by utilizing the Google Vision API for text conversion, custom faster R-CNN model for 24% faster real-time image extraction and integrated GloVe NLP techniques trained on in-house dataset, achieving a 94% increase in keyword extraction accuracy, and ensuring 100% regulatory compliance.
- Contributed to building permit management software, resulting in a 35% revenue increase and 180% efficiency improvement. Deployed refined Docker images on AWS EKS for reliable performance supporting 15-20k concurrent connections per second, enhancing vital business operations.

M.E. Rinker, Sr. School of Construction Management, UF | Graduate Assistant | Part-Time *Apr 2022 – May 2022*

- Demonstrated expertise by developing scalable APIs for payment processing, user-license management, driving the interest/acquisition of initial stakeholders/customers significantly using STRIPE as payment gateway and CRUD APIs.

Infosys Ltd | Senior System Engineer, System Software Engineer | Full-Time *Jul 2018 – Jul 2021*

- Improved mapper classes by 34% through analysis, modular architecture implementation, automated testing, and enhanced error handling, resulting in streamlined regulatory compliance reporting and a 25% reduction in errors for BOFA's AML system.
- Identified and addressed bottlenecks in the data processing pipeline, implementing multi-threading algorithms to parallelize tasks resulting a 40% reduction in processing time and a 15% increase in system throughput, enhancing performance for more efficient handling of large datasets for Victoria DHHS information system.
- Migrated 118+ SSRS to PowerBI reports and transferred data from SQL Server 2005 and Oracle to SQL Server 2017. Developed an automated testing system based on module dependency graph to ensure robust functionality and scalability.
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SKILLS

***Backend**:* C#, Python, Visual Basic, JavaScript, RedwoodJs, Node.js; ***Database**:* MongoDB, SQL Server, PostgreSQL, Redis.
***Cloud and DevOps**:* GCP, AWS, Kubernetes; ***Machine Learning**:* Keras, PyTorch.
Others: Product Development, Design Thinking and Algorithmic Thinking. Languages: English, Tamil

PROJECTS

Simple Reddit Under Prof. Dr. Alin Dobra 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.

Super Resolution Under Prof. Dr. Kejun Huang 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 5K dataset. Integrated a preprocessing layer to improve model validity, reducing errors and increasing accuracy by analyzing programmable and non-programmable factors.

Cache Simulator Under Prof. Dr. Ye Xia Jan 2022 – Apr 2022

- Developed a cache system simulator analyzing 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.

Compiler | August – December 2021 Under Prof. Dr. Beverly Sanders

- 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.

Accident Avoidance | January – May 2018 Under Prof. Mr. Arun Kumar

- Created 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.