JAYASUDHA KALAMEGAM

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EDUCATION

City University of Seattle *July 2023 - Present*
Master of Science in Computer Science (Dean's List Honor) **GPA: 4.00**
Coursework: Full-Stack Development, Data Structures and Algorithms for Computing, Artificial Intelligence for Data Science, Data Mining, Machine Learning and Deep Learning, Cloud Computing Overview

Anna University, Chennai, India *June 2012 - April 2016*
Bachelor of Engineering in Computer Science **CGPA: 7.9**

TECHNICAL SKILLS

Programming Languages:	JavaScript, Java, Python, Shell Scripting
Databases:	MySQL, SQL, MongoDB
Web Technologies:	HTML5, CSS3, jQuery, AJAX, React, MERN, React Native, NodeJS, Flask
Testing & Development Tools:	Git, Visual Studio, Postman, Docker, Azure Deployment, TeamCity, Udeploy, AutoSys
Cloud Services:	AWS - EC2, SageMaker, S3, DynamoDB, Lex, Lambda, VPC

WORK EXPERIENCE

TATA Consultancy Services, Chennai, India – *Associate Software Engineer* *Apr 2019 - Jun 2022*

- Collaborated with cross-functional teams to translate banking requirements into system-level solutions, enhancing data management and improving the efficiency of large-scale distributed systems
- Developed a custom tool to visualize AutoSys job dependencies and optimize scheduling, reducing resource conflicts and execution delays, and improving overall job efficiency by 25%

TATA Consultancy Services, Chennai, India – *Application Developer* *Feb 2017 - Mar 2019*

- Led the development of a distributed, real-time data processing system for a global banking client, improving operational efficiency by 40% and ensuring high availability and fault tolerance in financial systems
- Developed secure, scalable transmission modules using NDM SFTP for handling large volumes of financial data, incorporating advanced exception handling and performance optimizations to meet banking industry standards

PROJECTS

Home Run Derby Projection Model using MERN

- Built a MERN stack application integrating React, Express, and MongoDB to project MLB Home Run Derby outcomes, utilizing advanced sabermetrics and delivering real-time predictions
- Deployed on Azure, providing user-friendly interfaces for player comparisons with accurate 90% outcome projections, enhancing analytical insights for sports enthusiasts, and demonstrating application architecture

React Native Weather Application

- Developed a cross-platform React Native application using Expo, offering comprehensive daily forecasts, sunrise/sunset times, humidity levels, and UV index for accurate weather tracking on both iOS and Android
- Integrated dynamic GIF backgrounds and interactive UI elements, enhancing user engagement and delivering responsive, data-driven weather predictions through seamless API integration and real-time updates

Drowsy Driver Detection using Python

- Developed using CNN (Convolutional Neural Network) to analyze approx. 726 eye images, enhancing the real-time detection of drowsiness indicators like eye closure while driving
- Applied data augmentation techniques to improve detection accuracy by 35%, specifically for individuals wearing glasses, ensuring robust performance across diverse user conditions and environments

Visual Insight Generator using AWS

- Developed an AI-powered image recognition system using Amazon Rekognition for real-time object and facial detection, achieving 95% accuracy and providing precise visual insights. Enhanced the system with a React-based UI to ensure smooth user interactions and faster response times across various devices
- Designed and implemented a scalable, serverless architecture leveraging AWS services like Lambda, S3, and DynamoDB, ensuring cost-effective performance and seamless integration with other AWS tools