Sandhya Chinna Pillai

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Software Engineer with 3 years of experience in full-stack development, DevOps, UX optimization, and computer vision. Proficient in cross-border project execution and implementing agile methodology for design, development, and product testing, seeking software development roles.

EDUCATION

Cornell University, Ithaca, NY — *May 2023*
Masters in Computer Science — **GPA: 3.7 / 4.0**
- Coursework: Advanced DBMS, Computer Vision (CV), ML in Business, Project Mgmt., Strategic Mgmt. & Innovation
- Academic Service Assistant II: Economics and Finance for Engineering Mgmt.

Ramaiah Institute of Technology, Bangalore, India — *June 2020*
Bachelor of Engineering, Information Science — **GPA: 9.3 / 10**
- Coursework: OOPS, Java and J2EE (JDBC), Data Structures, Data Mining, Operating Systems, Engineering Mathematics

WORK EXPERIENCE

Graduate Student Researcher | Energy and the Environment Research Laboratory**,** Cornell University. *Jan 2023 – Present*
- Serving as a developer for a CV project aimed at localized identification of emission sources for air quality management
- Constructed a dataset identifying 500+ vehicles of 11 types by analyzing traffic surveillance feed from across the NY state
- Created pipeline for segmentation and tracking of vehicles by optimizing YOLO & SORT algorithms saving 6 min/detection
- Currently optimizing the code to handle occlusion issues and calibrate emission levels thereby increasing accuracy by ~9%

Associate Software Developer | Q2 Software, Inc. | Bangalore, India — *Sep 2020 – Jul 2022*
- Delivered high-quality solutions for over 7 full stack projects in collaboration with functional stakeholders such as product owners, QA teams, business and client teams, aiding critical lending solutions to banks
- Identified and resolved code performance issues by conducting in-depth reviews of configuration files andlogs and SQL queries, prompting a 20% increase in application speed and efficiency
- Redesigned user interfaces for 10 legacy applications, resulting in 35% increase in customer satisfaction rating
- Received "Prevailed Persistence Award" for outstanding contribution and consistently delivering high-quality Rest API's, bug-free code that met project timelines and exceeded customer expectations for Loan origination applications

Software Development Intern | Q2 Software, Inc. | Bangalore, India — *Jan 2020 – Aug 2020*
- Responsible for developing automated request and response mapping applications for third-party API integration of consumer and commercial finance platforms
- Successfully reduced JSON mapping write time from 1 hr to 27 minutes thereby improving operational efficiency by 200%, which potentially increased the productivity of developers in delivering integrations
- Attained management recognition for delivering a turnkey solution for the efficient processing of consumer credit data

RESEARCH PROJECTS

Sentiment Analysis using Neo4J — *Jan 2023 – May 2023*
- Conducted sentiment analysis on a dataset of 10,000 Twitter posts stored in Azure MySQL DB, providing assistance to airlines in data-driven decision-making for improving customer satisfaction.
- Utilized natural language processing (NLP) techniques to extract sentiment information, achieving an accuracy rate of 85%
- Compared the query performance of Neo4j, a graphical database system, with Azure SQL demonstrating a 40% faster query execution time using Neo4j in complex joins

Bi-Directional Communication System — *Feb 2020 – Apr 2020*
- Successfully collected 6000+ data points from human subjects on Indian Sign Language gestures, which was used to train a CNN model for live gesture recognition
- Created and implemented data preprocessing techniques for hand gesture recognition like skin filtration, resulting in more accurate recognition of hand gesture
- Integrated word and sentence prediction using Python, resulting in a 25% reduction in communication time for users

SKILLS AND CERTIFICATIONS

- **Skills**: Java, Python, MySQL, Javascript, C++, Spring Boot, Azure, Git, React, HTML, CSS, Figma, Salesforce, neo4j
- **Certifications:** Cypher Fundamentals, Graph Data Modelling, Python for Data Science, AI, and Development, Data Analysis with Python, Data Visualizations with Python

EXTRACURRICULAR INITIATIVES

- **Most Innovative Solution Award,** Animal Health Hackathon, Cornell University — *Feb 2023*
- Led blood donation camps and orphanage drives as a volunteer at National Service Scheme — *July 2016 – May 2017*
- **Interests**: South Asian cooking, crime documentaries, charcoal sketching, aqua-scaping