

Sandhya Chinna Pillai

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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

AWARDS

- Most Innovative Solution:** [Animal Health Hackathon](#), Cornell University Feb 2023
- Prevailed Persistence Award:** Compliance Systems Integration, Q2 Software, Inc Aug 2021

WORK EXPERIENCE

- Software Engineer**, Zinnia Health, NY, USA Jan 2024 – Present
 - Developed a CoPilot application in a Typescript-based monorepo that integrates Chat-GPT and Claude to assist clinicians in efficiently generating high-quality clinical notes, improving workflow and documentation accuracy.
 - Refactored a Next.js full-stack architecture to utilize a Fastify-powered Node.js server that now handles up to 1M requests per month, enhancing performance and scalability within the Turborepo framework.
 - Maintained and improved a BedBoard application, a patient lifecycle management tool that tracks admissions, discharges, room assignments, and authorizations across multiple facilities.
 - Created real-time alerts for admissions teams, notifying them of available beds specific to each facility, streamlining patient flow and reducing response times.
 - Developed automated data intelligence processes, including nightly emails with comprehensive census metrics (occupancy rates, average length of stays, discharge reasons etc.), reducing manual reporting by 75% and enabling leadership to make data-driven capacity decisions.
- Full Stack Developer** | Q2 Software, Inc. | Bangalore, India Jan 2020 – Jul 2022
 - Achieved seamless integration with third-party SOAP/ REST APIs by developing applications in Java and front-end technologies for over 8 full-stack projects in collaboration with product owners, business and client teams, aiding critical lending solutions to banks.
 - Worked on data extraction in loading JSON/ XML data from the server-side content into database (RDBMS), demonstrating proficiency in crafting and optimizing MySQL queries for streamlined data transfer.
 - Refactored legacy applications and built new dynamic lightning screens for Loan origination workflow engine using Figma, React and other front-end technologies with a high adoption rate of 90% among clients.
 - Developed a reusable and robust web-component, a JSON editor that significantly reduced request-response mapping time by 80%, enhancing operational efficiency.
 - Built a visual analytics dashboard to monitor API calls using Lightning Frameworks, aiding key insights to performance.
- Data Science Intern**, Greenbox Capital, Miami, USA July 2023 – Sep 2023
 - Designed predictive ML models to forecast conversion rates with a RMSE of 0.5%, a key metric for loan request approvals using python.
 - Developed a Vue.js dashboard for the marketing team that gives insights on seasonality analysis on loan request patterns using demographic, economic, geographic data.
 - Implemented a containerized architecture using Docker and Kubernetes, optimizing the workflow between an LLM based PDF data extractor feeding a pricing model.
- AI Fellowship Mentor** | Veritas AI | NY, USA July 2023 – Dec 2024
 - Provided guidance and mentorship to high school students, fostering their understanding of fundamental machine learning principles, including data preprocessing, visualization, and model building.
- Graduate Researcher** | Energy and the Environment Research Laboratory | Cornell University Jan 2023 – June 2023
 - Created pipeline for segmentation and tracking of vehicles by optimizing YOLO & SORT algorithms, saving 6 min/detection aimed at localized identification of emission sources for air quality management using Computer Vision.

RESEARCH PROJECTS

- Sentiment Analysis using Neo4J** Jan 2023 – May 2023
 - Conducted NLP-based sentiment analysis on Twitter airline posts, utilizing graphQL for complex pattern analysis that assist airlines in data-driven decision making for customer satisfaction, and Neo4j a graphDB written in Cypher showcased 40% faster query execution than Azure SQL for queries with more than 2 joins.
- Bi-Directional Communication System** Feb 2020 – Apr 2020
 - Developed a mobile application using Android Studio, Java, Python, HTML and CSS which facilitated real-time translation of Indian Sign Language gestures to text by running Python code on an AWS server, while also incorporating an autocomplete feature to expedite communication.

SKILLS AND CERTIFICATIONS

- Skills:** Typescript, React, Node, Next.js, Vercel, Fly.io, Java, Python, Database Management Systems, MySQL, PostgreSQL, MongoDB, Rest API, Javascript, UI/UX, DevOps, C++, Azure, Git, HTML/CSS, Figma, Salesforce, Cypher, GraphDB, Neo4j
- Certifications:** [Cypher Fundamentals](#), [Graph Data Modelling](#), [Python for Data Science, AI and Development](#)