SAHANA NARASIPURA VASUDEVARAO

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EDUCATION

Syracuse University — **Syracuse, New York**
Master of Science in Computer Science (GPA: 3.7/4.0) — **Aug 2023 - May 2025**

Visveswaraya Technological University — **Bangalore, India**
Bachelor of Engineering in Computer Science and Engineering — **Aug 2018 - Jul 2022**

SKILLS

Languages: Python, Java, C#, Typescript/Javascript, HTML, CSS, MySQL, NoSQL, REST API
Technologies: FastAPI, Express.js, Node.js, Spring Boot, React.js, Next.js, Angular.js, Docker, Kubernetes, AWS, Azure, Git, GitHub, Agile, NumPy, SciPy, NLTK, Scikit-learn, Pytorch, MySQL, PostgreSQL, EDA, Microsoft Playfab, Azure Scripts

WORK EXPERIENCE

Thursday Thrift Inc. [E-Commerce] | Lead Software Developer | Santa Clara, CA — **Jun 2025 - Present**

- Engineered a scalable full-stack system using FAST API and Prisma ORM(Python) for the backend, Next.js, Typescript and React for the frontend, PostgreSQL as the database, and AWS S3 for asset storage, implemented Git CI/CD and deployed on Vercel and Railway, developing onboarding features for 100+ thrift stores across the U.S. and achieving 90% user satisfaction on initial release.
- Elevated user experience for Thursday Thrift App users by introducing intuitive swipe-based interactions for item discovery, increasing engagement and session duration by over 40%.
- Designed and implemented an AI-driven personalization system using user interactions (swipes, likes, and views) with K-Means clustering and item-to-item collaborative filtering to deliver tailored recommendations, improving match accuracy and user retention by 60%.

Syracuse University (CASE Co-op Center with Toyz Electronics) | Software Engineer Intern | Syracuse, NY — **May 2024 - May 2025**

- Enhanced user experience for 15,000+ users by refining the UI in a React web app and Unity game, resolved key bugs and introduced seamless profile update and content viewing features, resulting in smoother navigation and a 30% increase in session retention.
- Integrated the OpenAI API with Microsoft PlayFab's UGC content to recommend personalized career paths for students, leveraging optimized semantic-prompting templates with response caching to minimize latency and deliver efficient, context-aware recommendations.
- Strengthened data integrity by developing HTTP trigger functions with Azure Functions to synchronize user data and publish user-created content to Microsoft PlayFab's marketplace across multiple platforms.
- Refactored 30+ API calls to optimize performance and eliminate 429 rate-limit errors by offloading heavy gameplay analytics to Snowflake, reducing API failure rates by 60% and query latency by 45%; built scalable dashboards delivering engagement and progress metrics for investors, mentors, and stakeholders.

Syracuse University (iConsult Collaborative) | Developer Intern | Syracuse, NY — **Nov 2024 - May 2025**

- Designed, fine-tuned, and deployed a GPT-3.5-Turbo-0125–based bias classification system using scalable embeddings and Spark-optimized data pipelines, reducing preprocessing time by 30% and re-learning overhead by 40%.
- Led end-to-end development of a production-ready NLP model achieving real-time bias detection with latency under 100 ms, improving user interaction efficiency by 15% through secure, scalable system design and deployment practices.

Bosch Global Software Technologies | Software Engineer | Bangalore, India — **Jul 2022 - Jul 2023**

- Developed microservices and test automation for Bosch platform using Angular, Javascript and SpringBoot supporting 60K+ products.
- Researched, Presented and Prototyped applications of Deep Q-Networks based Reinforcement Learning with RFID integration in efforts to optimize Bosch Spare Tools supply chain, enhancing stock management, demand forecasting, and production planning across subsidiaries earning the best innovation idea award.

PROJECTS, PUBLICATIONS & CONFERENCES

Grape Leaf Disease Detection System — **Dec 2024**

- Architected a deep learning–based grape leaf disease detection system using CNNs (TensorFlow, OpenCV, Python) to assess plant health, diagnose diseases, and suggest remedies, achieving a 97.12% cross-validation accuracy on a dataset of 10,000+ images.
- Implemented a full-stack web platform with Flask, Angular.js, and MongoDB for real-time image upload and classification, integrating advanced preprocessing and augmentation pipelines to improve detection accuracy and model robustness.

Named Entity Recognition System — **Mar 2024**

- Developed a Bi-LSTM based neural network four-layer architecture (Embedding, Bi-LSTM, LSTM, and TimeDistributed) using TensorFlow and Keras for Named Entity Recognition (NER), achieving an accuracy of 96.9%.

Automatic Hate Speech Detection System using Ensemble Method and Natural Language Processing Techniques [IEEE] — **Oct 2023**

- Led the development of a supervised ensemble machine learning model (Random Forest + Support Vector Classifier) employing NLP techniques for preprocessing to classify bi-lingual textual content into hate, offensive or neutral speech achieving a 90.7% accuracy.
- Incorporated the model into the course feedback form of CSE Department at Bangalore Institute of Technology, to filter hateful comments, this change resulted in increased authentic feedback and a safer outlook for professors evaluating the feedback responses.
- Presented my work at the 2023 International Conference on Network, Multimedia and Information Technology (NMITCON) and published the research in the IEEE Digital Library as the first author.