Sindhu Vadapalli

925-640-5168 | isindhu925@gmail.com | linkedin.com/in/sindhuvadapalli | github.com/prpl-25 | portfolio

Education

Arizona State University Aug 2025 – May 2026
Master of Science in Computer Science: with thesis | GPA: 4.0 *Tempe, AZ*

Arizona State University Aug 2021 – May 2025
Bachelor of Science in Computer Science: Minor in Statistics | GPA: 4.0 *Tempe, AZ*

Experience

Research Assistant Sep 2024 – Present
Self-Organizing Particle Systems Lab, ASU *Tempe, AZ*

- Researched near-optimal solutions for the traveling salesman problem using reinforcement learning. Examined an auction-based heuristic against the greedy nearest-neighbor heuristic for 70+.
- 85% instances outperformed nearest neighbor; achieved an average of 2.5% cost improvement. Funded by the National Science Foundation REU award.

Software Engineering Intern Aug 2024 – May 2025
Hidden Gemz *Remote*

- Designed a real-time, user centered recommendation system using collaborative filtering.
- Integrated Google Maps API to get the distance and time given location and transportation method. Achieved system scalability and streamlined API/database calls for future growth as part of a 4 person capstone team. Tools and tech stack: Pandas, NumPy, Sci-kit learn, PostgreSQL

Research Assistant May 2024 – Dec 2024
The Virtualized Infrastructures, Systems, and Applications Lab, ASU *Tempe, AZ*

- Assisted in developing machine learning models for stress prediction using biometric data (MET) from over 6000 Fitbit samples collected from police cadets.
- Improved model accuracy from 68.83% to 79.75% through hyperparameter tuning and effective interval identification. Conducted data preprocessing, including cleaning and feature extraction, utilizing Pandas, NumPy, and scikit-learn.

Undergraduate Teaching Assistant Aug 2022 – Dec 2024
Ira A. Fulton Schools of Engineering, ASU *Tempe, AZ*

- UGTA for "Intro to Theoretical Computer Science", "Principles of Programming" and UGTA "Object Oriented Programming and Data Structures"
- Administered weekly office hours and exam reviews with a student turnover between 60–100.

Projects

Cookin: your AI chef buddy! | *React native, RN Executorch, LLaMA 3 model* June 2025 – July 2025

- Developed an AI-powered cooking app using React Native and Executorch to simplify meal planning .
- Deployed an on-device LLaMA 3 model to generate curated recipes based on user input.
- Integrated speech-to-text (STT) using react-voice, enhancing accessibility for diverse user needs.
- Prompt engineered to fine-tune recipe quality, balancing accuracy and creativity. Published to the App Store with optimized performance and responsive UI, resulting in 15+ organic downloads.

LingoVerse | *MongoDB, Express.js, React, Node.js* Aug 2024 – May 2025

- Built a full-stack language learning application enabling users to create, organize, and review flashcards.
- Engineered secure authentication system using bcrypt to hash passwords and safeguard user credentials.
- Developed RESTful API endpoints with Express.js to manage account creation and user authentication.
- Led an Agile team, coordinating 2-week sprints to drive consistent progress and collaboration.

Technical Skills and Awards

Languages: Java, Python, C/C++, SQL, C#, JavaScript, HTML/CSS, Swift
Frameworks: React, Node.js, Flask, JUnit, PyTorch, React Native, .NET
Developer Tools: Git, Jupyter Notebook, VS Code, Visual Studio, Eclipse
Certificates: Deep Learning Specialization by DeepLearning.AI from Coursera
Awards: Dean's List, FURI award, National Science Foundation REU award, ASU NAMU - Provost's Award