

Yash Agarwal

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Education

University of Arizona

Tucson, AZ

BS. Information Science (Data Science emphasis)

Aug 2021 – May 2024

Relevant Coursework: Introduction to Computer Programming, Discrete Mathematics, Data Structures and Algorithms, Software Development, Object Oriented Programming, Web Programming, Computer Organization, Data Engineering, Data Mining and Visualization, Artificial Intelligence, Introduction to Machine Learning, Data Warehousing and Analytics in the Cloud.

Aspiring Software Engineer with expertise in Software Development (Back-end and Front-end), spearheaded the creation of TARS, a cutting-edge multilingual AI system featuring human-like emotional intelligence, designed to perform complex tasks and provide intelligent assistance across various platforms.

Experience

Software Systems Specialist

Mar 2022 - May 2023

University of Arizona | Tucson

- Troubleshooted hardware malfunctions, implementing preventative measures that reduced external service dependencies by 20%.
- Optimized workstation setups using Windows Group Policy and configuration management, improving user satisfaction by 25%.
- Provided technical training to non-technical staff, significantly reducing recurring support requests by 40%.

Software Development Intern - Systems Focus

May 2019 - Jul 2019

Gyan | Denver

- Assisted in automating the management of VMware virtual environments using Python and PowerCLI scripts, improving resource utilization by 20%.
- Configured and maintained high-availability clusters using VMware vSphere, reducing downtime and improving system performance.
- Supported the deployment and management of VMware Horizon 7 virtual desktop infrastructure, ensuring seamless user experience.

Projects

TARS (Task-oriented Automated Reasoning System)

- Developed an AI bot using CI/CD tools, GPT-4, Google Cloud Platform and LangChain, improving conversational accuracy by 35% through long-term memory, semantic search capabilities and Performance Optimization.
- Implemented ElevenLabs API for real-time text-to-speech conversion, reducing response latency by 20% while delivering human-like voice interactions.
- Integrated Whisper ASR for multilingual speech-to-text processing, achieving 95% transcription accuracy in real-time voice interactions.

Air Quality Index vs Electric Vehicles: Data Analysis

- Conducted in-depth data analysis by sourcing and cleansing two complex datasets, uncovering correlations between air quality and electric vehicle adoption rates.
- Visualized data trends using advanced analytics tools, providing clear, data-driven insights that were presented to the class for academic evaluation and discussion.
- Achieved a 30% improvement in data processing efficiency by automating data cleaning and transformation processes.

Technical Skills

Languages: Python, C++, Java, SQL, HTML/CSS, JavaScript, R

Frameworks/Libraries: Pandas, API, Numpy, SeaBorn, Matplotlib, Azure, AWS, OpenAI, Twilio, Node.js, React, Angular

Tools: Git, Jupyter Notebook, Unit Testing, Databricks, Spark, Flutter, Database, Cloud Systems

Awards: iShowcase Senior Capstone Project Top Award

Soft Skills: Collaborative, Innovative, Motivated, Leadership