Abhinav Gorantla

Tempe, AZ | 602-500-6301 | agorant2@asu.edu | linkedin.com/in/abhinav-gorantla | abhinavgorantla.me

EDUCATION

ARIZONA STATE UNIVERSITY, Ira A Fulton Schools of Engineering **Tempe, AZ**
Master of Science in Computer Science (CGPA: 4.0/4.0) *May 2025*

- Coursework: Artificial Intelligence, Multimedia and Web Databases, Knowledge Representation, Database Management Systems Implementation, Data Intensive Systems for ML, Statistical Machine Learning, Planning and Learning methods in AI..

VELLORE INSTITUTE OF TECHNOLOGY, School of Computer Science & Engineering **Vellore, TN, India**
Bachelor of Technology in Computer Science and Engineering (CGPA: 8.94/10) *May 2023*

- Coursework: Data Structures and Algorithms, Database Management Systems, Operating Systems, Computer Networks, Applied Linear Algebra, Artificial Intelligence, Machine Learning, Discrete Math and Graph Theory, Image Processing, Applied Statistics.

SKILLS

Programming: Python, C++, C, Java, JavaScript, TypeScript, Kotlin, NodeJS, ExpressJS, NestJS, ReactJS, AngularJS, FastAPI.
Databases: Salesforce, MongoDB, Google Firestore, SQL.
Other: AWS S3, AWS EC2, AWS Sagemaker, Shell scripting, Pytorch, Git, Tensorflow, Tailwind, Bootstrap.

EXPERIENCE

ARIZONA STATE UNIVERSITY **Tempe, AZ**
Graduate Teaching and Research Assistant *August 2024 – Current*

- Research areas: Multi-Objective Optimization, causal ML. Working towards optimizing traditional Skyline algorithms.
- Teaching Assistant for graduate level course computer science course for two semesters under Prof. K. Selçuk Candan. Held bi-weekly office hours. Provided guidance to students for the course project and organized project demos.

ARIZONA STATE UNIVERSITY **Tempe, AZ**
Graduate Services Assistant *March 2024 – August 2024*

- Supported researchers at CASCADE Lab on an effort to build the causalbench python package and website to create an end-to-end benchmarking solution for researchers in the field on causally informed machine learning.
- Engineered and optimized backend architecture for the Skysong project to enhance data flow efficiency and boost server response time by 80%. Also reduced the cost of deploying the system by 30% by integrating AWS Sagemaker into the system.

WEBKNOT TECHNOLOGIES PVT. LTD. **Remote**
Software Development Engineer Intern *April 2022 – June 2023*

- Revamped API endpoints within the Palette project, achieving a notable 30% reduction in response times.
- Employed Jenkins to optimize the deployment workflow for full-stack web applications, ensuring seamless delivery.
- Engineered a custom plugin for Sisense BI software, to display geojson data on a GeoJSON layer on maps rendered via DeckGL.
- Optimized JAQL queries for the DeckGL plugin within Sisense resulting in a 40% reduction in query response time.

PUBLICATIONS

Introducing CausalBench: A Flexible Benchmark Framework for Causal Analysis and Machine Learning
In 33rd ACM International Conference on Information and Knowledge Management ***[Best Demo Award]***

PROJECTS

Research Publications Analysis tool

- Proposed an architecture and built a research publications analysis tool for ASU. This tool was built as a web application which could fetch research paper information affiliated with ASU using SCOPUS APIs and perform a text analysis on their abstracts.
- Improved user experience by reducing the server response time by 80%.

Multimodal Image Retrieval System using Advanced Feature Analysis and Search Techniques

- Developed a Python-based image retrieval engine encompassing feature extraction from Caltech101 dataset images, latent semantics computation, clustering, and classification. Employed Locality Sensitive Hashing to index image features, optimizing nearest neighbor searches and ensuring scalability for expansive image datasets.

The Weekly Edge (TWE)

- Built a back-end REST API with CRUD operations to post, edit, and view articles written by members at THEPC - VIT.
- Maintained this MERN stack project for 1.5 years, introducing various new features focussing on a better user experience.

LEADERSHIP

THEP Journalism Club, *Vice Chairperson*

- Established and sustained a robust MERN stack application as the cornerstone of the club's online newsletter platform.
- Pioneered the creation of "The Almost Worthwhile Podcast" for our club, achieving an impressive audience of nearly 800 listeners during its inaugural month.