Tejas Gupta

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EDUCATION

Arizona State University Tempe, Arizona
Bachelor of Science in Computer Science Expected Graduation, May 2027
GPA: 3.84/4.00

- **Concentrations**: Intelligence and Modeling/Simulations
- **Related Coursework**: Computing in Python, Object-Oriented Programming, Data Structures and Algorithms, Statistics and Applications, Discrete Mathematics, Approaches to Intelligence

EXPERIENCE

University Housing Assistant **ASU Tempe Campus**
Oct 2023 – Present

- Acting as the front-line representative for **1,500+ residents**, ensuring safety, order, and adherence to housing policies, contributing to a **15% increase** in resident satisfaction.
- Streamlined administrative processes during peak periods, reducing service response time by **20%**.
- Maintained a rigorous schedule, balancing a 20-hour work week with a full-time academic course load, showcasing time management and prioritization skills.

Headstarter SWE Fellowship **Remote**
Summer 2024

- Completed an intensive **7-week fellowship**, building **5 AI projects** and participated in **5 hackathons**, enhancing development and teamwork skills.
- Developed a comprehensive final project, demonstrating technical and entrepreneurial capabilities while applying feedback from experienced mentors to refine project outcomes.
- Met industry professionals weekly in seminars to gain insights and learn more about the software engineering industry.

Research Lead **EPICS - Autonomous Delivery Drones, ASU**
Jan 2024 – May 2024

- Designed an autonomous drone capable of transporting **25 lbs over 10 miles**, focusing on **control systems** and **structural designs** using **Arduino** and **SolidWorks**.
- Engineered a control system for reliable medical supply delivery, achieving a prototype success rate of **85%**.
- Engaged with local communities to identify and solve logistical challenges, improving emergency response times by proposing scalable drone deployment solutions.

PROJECTS

Sherpa - Autonomous Vehicle Collaboration Platform (Github)

- Built a data-sharing platform for autonomous vehicles to enhance traffic flow and reduce congestion.
- Utilized **CoMAL** for efficient LLM task management, integrated **TomTom API** for real-time traffic analysis, and leveraged **IRIS Vector Search** for processing complex data sets.
- Developed object detection models using **YOLOv11** and **BAML** for structured data, contributing to a 15% reduction in projected traffic congestion.
- Trained a custom object detection model on **Roboflow** to identify traffic lights, cars, humans, and other moving objects from live camera feeds, achieving an accuracy of 83.4%.

Aether AI - Chat to Research Paper Platform (Github)

- Built a **Next.js** app with **Shadcn/ui** for modular, scalable UI design and **Clerk** for robust authentication and user management.
- Integrated **Firebase Firestore** for secure data handling and real-time synchronization, and **Pinecone** for high-performance semantic search and vector-based PDF analysis.
- Designed advanced NLP features enabling users to interactively query PDFs, extract insights, and understand detailed research content with up to 200 pages.
- Implemented a monetization framework using **Stripe.com**, supporting subscription and transaction models.
- Developed a responsive and intuitive UI using **React.js**, creating a user-centric experience for analyzing academic documents efficiently.

SKILLS

Languages: Python, C++, JavaScript, PostgreSQL
Frameworks: Next.js, React
Tools & Platforms: Firebase, Pinecone, Docker, AWS, Stripe, Git, Clerk
Specializations: NLP, Semantic Search, Full-Stack Development

CLUBS AND ORGANIZATIONS

- **CS+Social Good ASU**: Dedicated to harnessing computer science for societal betterment by creating philanthropic projects that combine technology and social impact.
- **Software Developers Association (SoDA)**: Collaborated with CS students on coding projects, improving skills in Python and JavaScript. Engaged in workshops and challenges to enhance problem-solving and teamwork.