GARGI PATHAK

Lubbock, Texas | Gargipathak@gmail.com

Education

Bachelor of Science in Computer Science | Texas Tech University **May 2026**

- Relevant Coursework: Data Structures and Algorithms, Discrete Math, C programming, Data Science, Object Oriented Programming, Assembly, Concepts of Programming Languages, Database systems
- Relevant Certification: AWS Cloud practitioner, Microsoft Azure AZ-900

Skills

Languages: JavaScript , Python ,C,C#, Java , Rust,
Frameworks and Tools: Docker • MongoDB • React • Express • NodeJS • Next.js • Webpack • Django • Git • LangChain • TensorFlow • React • AWS • Cloudflare • .NET • AZURE

Professional Experience

Software Engineering Intern | Betenbough Homes.Inc, Lubbock, TX. **May 2024 – Aug 2024**

- Reduced page load times by **20% across 100K+ user sessions** by refactoring legacy spaghetti code, optimizing backend services in **C#**, and leading key efforts in API migration, improving system responsiveness and scalability.
- Engineered and maintained scalable backend services using **ASP.NET** with **MySQL**, optimizing database queries, improving data retrieval efficiency, and ensuring high availability and reliability of core application features.
- Designed and developed dynamic, responsive UI components using **Angular**, implementing reusable components and improving front-end performance, usability, and cross-browser compatibility.
- Collaborated in a fast-paced **Agile** environment, utilizing **Jira, Bitbucket, and Confluence** for sprint planning and tracking, conducting peer code reviews, and successfully deploying production-ready features through CI/CD workflows.

Technology Intern | UC Berkeley, Berkeley, CA. **May 2025 – Aug 2025**

- Delivered technical mentorship to **100+ students**, leading hands-on workshops in **Python, C++, Arduino, Raspberry Pi, 3D printing, and Git-based workflows**, significantly improving prototype development efficiency.
- Guided students in building **embedded systems and microcontroller-based projects**, providing support in hardware-software integration and real-world prototyping.
- Co-developed a **therapeutic smart sleep mask** using **Arduino and Raspberry Pi**, contributing to firmware development, system design, and **AutoCAD-based product prototyping** for anxiety and cortisol management.

Web Developer | Kiechler Law Firm PLLC, Houston, TX. **Jan 2025 – May 2025**

- Developed a cross-platform appointment scheduling application using **Swift, React Native, and TypeScript**, improving user experience and streamlining client consultation workflows.
- Built and optimized **iOS front-end components** using Swift frameworks, delivering responsive and intuitive user interfaces tailored for mobile users.
- Integrated front-end and back-end systems using **OpenAPI specifications** and **Swift OpenAPI Generator**, ensuring type-safe, consistent API communication.

Projects

Resona

- Engineered a biometric voice authentication system with 94% model accuracy, leveraging deep learning, Cloudflare security, and OAuth (ZeroAuth) authentication to prevent voice spoofing and impersonation
- Deployed AWS SageMaker-trained model handling real-time authentication under 200ms latency, securing transactions in banking, virtual meetings, and digital assistants

ResQ

- Developed a blockchain-powered emergency relief platform that streamlines the distribution of donations between fire stations and relief centers, reducing inefficiencies and ensuring resources reached areas in need during natural disasters, especially wildfires
- Implemented real-time resource tracking and automated zip code matching using Midnight on Ethereum, enhancing transparency, boosting community trust, and creating a scalable solution adaptable to future disaster relief efforts

Project-16

- Built a web app to monitor and forecast methane emissions, integrating real-time satellite imagery covering 1000+ sq km
- Used Django, Google Cloud Console and Earth Engine for satellite data processing, and SQLite for database management

Activities

President | Girls Who Code, TTU Chapter **Oct 2024 – Present**

- Built and led a supportive, entrepreneurial coding community, mentoring **middle and high school students** in developing foundational skills in **web development, programming, and software projects**.
- Led outreach initiatives across **Lubbock and Amarillo**, expanding participation and increasing access to STEM opportunities for young women.

Awards

- 7x Hackathon Wins
- President's Honor List, 3 Semesters