Karan Bhagat

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EDUCATION

Texas A&M University   Expected May 2026
Bachelor of Science in Computer Science, Minor in Business (GPA: 3.96 / 4.00)   *College Station, TX*
- **Relevant Coursework:** Programming Design and Concepts (C++), Discrete Mathematics, Data Structures and Algorithms, Linear Algebra with Applications, Computer Architecture, Software Security

EXPERIENCE

Software Development Intern   May 2024 – July 2024
Arup   *New York, NY*
- Engineered large-scale data pipelines in Python (Pandas, RegEx, APIs) to parse 22GB+ energy datasets, analyze usage patterns, and automate data integration into PostgreSQL.
- Developed real-time monitoring systems for maritime safety using AIS/LiDAR ingestion, WebSocket/NMEA parsing, geospatial analysis, and SQL Server automation with alert workflows.
- Enhanced web applications by integrating Angular frontends with AWS Lambda/DynamoDB, and collaborated on Django/PostgreSQL schema design to improve scalability and maintainability.

Sofware Engineering Intern   May 2024 – July 2024
Cuvasol Technologies   *Dallas, TX*
- Developed a resume screening application with Flask and Flutter, enabling automated mock interview preparation for clients.
- Implemented a React and MySQL document upload system to streamline resume submission and processing workflows.
- Extracted relevant skills and experience using LLMs, and generated technical interview questions with Retrieval-Augmented Generation (RAG) based on job descriptions.

Web Developer   August 2022 – July 2023
Paramount Technologies LLC   *Dallas, TX*
- Developed and styled company website using HTML, CSS, and JavaScript, featuring smooth scrolling functionality: https://www.paramounttechllc.com/.
- Implemented a user-friendly contact form with CSS styling and integrated email confirmation mechanism using PHP.
- Designed a distinctive logo and favicon for brand identity, ensuring seamless recognition across web browsers

PROJECTS

YouTune | *Full stack web app*
- Collaborated on the development of a short-form music streaming platform using Electron, React.js, and Django, with a Django REST API supporting user authentication and CRUD operations on playlists and songs: https://github.com/kbhagat04/YouTune
- Deployed APIs to Azure App Service with a PostgreSQL backend and tested endpoints via Postman to ensure reliability and scalability.
- Optimized search performance by implementing lazy loading, reducing initial response time by 80% and increasing daily search capacity by 5x through more efficient YouTube API usage.

City Shaper | *IOS Application*
- Developed a user-friendly scoresheet for the First Lego League Robotics competition using the SwiftUI framework
- Successfully published to Apple app store, garnering over 2000 downloads: https://github.com/kbhagat04/FLL2019CityShaper

TECHNICAL SKILLS

Languages: Python, C++, JavaScript, SQL, HTML, CSS, Scheme, R, LaTeX, Swift
Technologies: React.js, Electron, Django, AWS, Azure, Pandas, REST APIs, SQL Server, Git, GitHub, Docker, JavaFX, MS Office, Adobe Suite, Google Cloud/Drive
Honors: Craig and Galen Brown Engineering Honors, Deans List, President's Endowed Scholarship, IB Diploma, National Merit Finalist