Tejas Chandra

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Education

University of North Carolina - Chapel Hill | Chapel Hill, NC
Bachelor of Science in Computer Science and Mathematics | *Expected Graduation: 2026*
- Undergraduate Teaching Assistant; Quantitative Analyst at Carolina Investment Group, Tech Lead at UNC Computer Science + Social Good

Experience

Software Engineering Intern | May 2024 – August 2025
Bank of America | *Charlotte, NC*
- Engineered a Python transpiler to convert Alteryx SQL configurations into executable Python modules, enabling scalable pipelines for 3,800+ automated enterprise tests.
- Built a Python and C# library to interface with Active Directory via NTLM and LDAP, providing credential handling, token authentication, and directory queries for internal service tools.
- Built modular ETL logic using object-oriented design principles and SQLAlchemy, replacing legacy SQL workflows with type-safe, extensible code infrastructure.

Software Engineer | August 2024 – December 2024
UNC CS Experience Lab | *Chapel Hill, NC*
- Developed a full-stack authentication system using FastAPI, TypeScript, and Angular, supporting secure user registration, login flows, and JWT-based session management.
- Designed 18 PostgreSQL schemas with SQLAlchemy and Pydantic for backend validation, improving data integrity and integration with RESTful services.
- Deployed containerized application services to a Red Hat OpenShift Kubernetes cluster using Docker, enabling scalable production-ready deployment with CI/CD compatibility.

Full Stack Developer | September 2023 – May 2024
Compass Center | *Chapel Hill, NC*
- Led the architecture and development of a client-facing web application using Next.js, Node.js, and Firebase, collaborating with a team of 6 engineers in Agile sprints.
- Optimized PostgreSQL performance through schema redesign, indexing strategies, and query refactoring, reducing average response latency by 30%.
- Implemented dynamic, server-rendered UI components with Next.js and TailwindCSS, integrating RESTful API calls to deliver personalized, real-time user experiences.

Projects

LLM Reinforcement Learning Scoring Pipeline | *DistilBERT, PyTorch, HuggingFace* | January 2025 – May 2025
- Built a machine learning pipeline to train and evaluate a DistilBERT-based model on the HelpSteer dataset, predicting human-aligned helpfulness scores for LLM-generated responses.
- Fine-tuned the model using custom context-response pair embeddings and domain-specific loss functions, achieving 63% directional accuracy and a 0.45 Spearman correlation with human evaluations.
- Engineered a preprocessing and scoring pipeline with normalization, augmentation, GPT-2–based corrections, and modular architecture for seamless integration into RLHF reward modeling workflows.

Connect3 – Proximity-Based Social Networking Platform | *Next.js, FastAPI, Firebase* November 2024 – January 2025
- Led end-to-end development and system architecture of a real-time social networking platform inspired by the Six Degrees of Separation theorem, defining data contracts, access control layers, and update flows.
- Designed custom graph traversal and search algorithms for degree-based access logic, enabling controlled visibility and dynamic user connections.
- Implemented secure, production-ready authentication with Firebase Auth and custom user claims, supporting multi-provider login and role-based access.
- Enhanced the platform through performance tuning, frontend usability refinements, and feedback-driven iteration using scoped React hooks.

Skills

Relevant Coursework	Operating Systems, Compilers, Networking, Databases, Automata, AI, ML
Languages	Python, C++, Java, C, TypeScript, C#, SQL, JavaScript
Frameworks/Tools	React, Next.js, Angular, Node.js, FastAPI, Flask, PostgreSQL, Docker, Git, AWS
Systems/Other	REST APIs, JWT, OAuth2, Agile, Scrum, CI/CD, SDLC