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PROFESSIONAL WORK EXPERIENCE

Software Developer Intern – IBM Learning   **Austin, TX**
Full-time - Jira, Vite, JavaScript, Python, Docker, Milvus Vector Database, IBM Cloud, IBM DB2, IBM watsonx Orchestrate   *May 2025 - Present*

- Spearheaded the end-to-end development of an AI-powered chatbot agent and assistant, streamlining user experience through smoother interactions, quicker access to content, and a 30% reduction in navigation time across the IBM Learning platform
- Implemented a scalable multi-agent recommender system that delivers personalized course suggestions, resulting in a 25% increase in learner engagement and laying the foundation for future cohort-based learning initiatives across IBM's internal training platform.
- Defined the AI chatbot's performance by optimizing intent recognition, debugging complex conversational logic, and enhancing dialogue flow, which led to a 40% reduction in misclassification errors and a 20% boost in user task success rate, all while aligning cross-functional team efforts.

Web Specialist - Department of Bioengineering, The Erik Jonsson School of Engineering and Computer Science at UT Dallas   **Richardson, TX**
Part-time - Jira, WordPress, Vanilla HTML, CSS, JavaScript, Photoshop, Dreamweaver   *June 2024 - Present*

- Managed and continuously enhanced over 20+ department and lab websites, identifying outdated assets, streamlining navigation structures, and collaborating with stakeholders to improve performance, accessibility, and consistency across the school's online presence.
- Designed and deployed responsive static websites from scratch using HTML, CSS, and JavaScript, creatively integrating high-quality, custom-processed graphics to overcome WordPress plugin limitations and boosting overall site speed and reliability by 30%.
- Collaborated with faculty and web team members to overhaul visual layouts and metadata structures, applying modern UI/UX and SEO best practices that led to a 40% increase in organic search visibility, longer visitor sessions, and improved engagement from students and faculty.

Smart Data Solutions - Healthcare Correspondence LLM Project   **Richardson, TX**
Computer Science Project – Python, Chroma DB, Llama 2, Flask API, Tesseract OCR, HTML, CSS, JavaScript   *January 2024 – May 2024*

- Developed a custom Healthcare Correspondence Assistant using large language models to intelligently extract, filter, and summarize patient data from scanned records, reducing manual document review time by over 50% for hospitals and care providers.
- Processed and indexed more than 10,000 healthcare documents by integrating OCR pipelines, Chroma database, and Llama 2, enabling real-time retrieval of relevant data for clinicians and administrative staff through a streamlined query interface.
- Deployed and optimized the model using GPU-based inference on AWS, cutting average response times from 2.5 minutes to 15 seconds and improving query accuracy by 20%, while ensuring cost-efficient scalability for large healthcare systems.

PROJECTS

RoadPatcher   **Richardson, TX**
Python, Tensorflow Lite, IMU, YOLOv11, GPS, Sensor Fusion, INT8 Quantization, CNN-Residual, React Native   *September 2025 – December 2025*

- Developed a dual-sensor ML mobile app with React Native, Expo, and TensorFlow Lite, achieving 98.53% F1 (IMU) and 95% mAP (Vision) for real-time pothole detection. Implemented a 4-phase Kalman filter fusing accelerometer and camera data with GPS filtering, reducing false positives by 30%.
- Optimized CNN-Residual model (3 residual blocks, skip connections) with INT8 post-training quantization achieving 1.22x faster inference (0.137ms) and 0% accuracy loss; deployed as 370KB TFLite model with BUILTIN ops only for cross-platform iOS/Android compatibility using CoreML delegate
- Architected end-to-end ML pipeline from HDF5 data collection through 5-fold cross-validation training with data augmentation, automated TFLite export (onnx2tf), to production deployment with SQLite persistence, map clustering, CSV/JSON export, and haptic feedback for real-time driver alerts.

Toyoda – Your AI Car-Buying Agent   **Richardson, TX**
HackUTD 2025 - Lost in the Pages – React Native, Shadcn, Nvidia Nemotron, ElevenLabs, NodeJS, Python, Auth0, Go Lang   *November 2025*

- Built AI-powered car shopping assistant that automatically contacts 100+ local dealerships using NVIDIA Nemotron LLM for insight extraction and ElevenLabs voice synthesis; aggregates real-time out-the-door pricing, availability, and special offers into a unified comparison dashboard eliminating hours of manual dealer outreach.
- Implemented agentic AI workflow with 3 specialized Python agents—Confirmation Agent (appointment scheduling), Bargaining Agent (price negotiation), and Insight Extraction Agent (deal analysis)—orchestrated through Google Gemini for natural multi-turn dealer conversations with context retention across calls.
- Developed full-stack application with React frontend, Golang backend API, FastAPI AI microservices, and Supabase PostgreSQL database; integrated Auth0 OAuth 2.0 authentication, real-time WebSocket updates for call status, and Toyota-inspired UI/UX with search session management and dealer response tracking

EDUCATION

The University of Texas at Dallas   **Richardson, TX**
M.S. Computer Science with Data Sciences track   *December 2025*
B.S. Computer Science   *August 2024*
Relevant Courses: Cloud Computing, HCI, ML/AI on Mobile device, Database Systems, Machine Learning, Artificial Intelligence, Natural Language Processing, Statistical Methods for Data Science, Design and Analysis of Computer Algorithms, Big Data Management and Analytics, Web Programming Language.
The University of Texas at Dallas – Fullstack Academy   **Richardson, TX**
Data Analytics Bootcamp Certificate   *October 2022*

TECHNICAL SKILLS

- Concept: AI, ML, NLP, LLM, API, Database, Cloud Computing, Data Structures
- Programming Language: JavaScript, Typescript, Python, Java
- Databases: MySQL, MongoDB, PostgreSQL, Oracle
- Framework: React, Vite, Next.js, Node.js, PyTorch, Flask
- DevOps: GitHub, Linux, Docker, Firebase, Google Cloud, IBM Cloud, IBM watsonx Orchestrate, AWS S3, Tableau, Power BI

EXTRACURRICULAR

UTD Vietnamese International Network of Culture, Education and Friendship Organization   **Richardson, TX**
President   *May 2023 – June 2024*

- Executed strategic initiatives that led to the formation of 5+ community partnerships and successfully organized a Vietnamese Lunar New Year gala attended by over 80 participants, resulting in a 20% increase in event engagement and fostering stronger cultural and community connections.
- Led initiatives to enhance internal communications and strategically manage a $10,000 budget, resulting in a 15% increase in engagement and satisfaction. This included implementing streamlined workflows, fostering cross-team collaboration, and aligning spending with organizational goals to maximize impact.