Donne Su

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EDUCATION

University of Texas at Austin B.S. Computer Science & Economics, Minor in Robotics Fall 2026

SKILLS

Relevant Coursework: Data Structures, Discrete Math, Matrices and Matrix Calculations, Computational Architecture, Operating Systems, Machine Learning, Deep Learning, Econometrics, Financial Economics, Game Theory, Data Visualization
Proficient: Python, Java, Angular, React, HTML, CSS, JavaScript, TypeScript, SQL, R, C, TensorFlow, PyTorch, ROS2, Git, Figma
Familiar: OpenCV, Tesseract OCR, Natural Language Processing, MATLAB, SolidWorks, STATA, Svelte

EXPERIENCE

Longhorn Racing - *Software Engineer (Simulation & Validation)* August 2024 – Present

- Simulate brake rotor thermal properties with **TensorFlow**, validating material and tires to ensure optimal heat resistance and durability.
- Integrate real-time track data into lap-simulation models, improving vehicle performance by 12% through data-driven adjustments.
- Reduce unsprung mass by 10% using Finite Element Analysis (FEA) to optimize brake assemblies and enhance vehicle handling.
- Optimize braking system using IMU data and FEA, reducing heat distortion by 20% and improving braking efficiency by 8%.

EcoCAR - *Software Engineer (Autonomous Perception Research)* June 2025 – Present

- Develop and validate autonomous parking logic using **ROS2** and sensor fusion from LiDAR and cameras; tuned motion planning to improve parking reliability by 30%, blending perception, planning, and control systems into a cohesive workflow.
- Integrate pose estimation and real-time control with ROS2 to enable accurate alignment in constrained parking scenarios.
- Tune motion planning algorithms using Hybrid A* and optimized obstacle avoidance in parallel and perpendicular parking.
- Validate system performance in simulation and live vehicle tests, reducing average parking error by 30% across multiple trials.

J.P. Morgan Chase - *Software Engineer Intern* June 2025 – August 2025

- Engineered prompt-driven pipelines integrating corporate **LLM** to generate compliance form templates and implemented iteratively refined prompt pipelines to improve accuracy, reducing manual effort and validation cycles.
- Implemented unit, integration tests with **Jest** to ensure the LLM-powered form builder and dashboards were reliable and user-friendly.
- Migrated compliance dashboards from **Angular** to **React** using microfrontend architecture, reducing legacy footprint by 20%.
- Designed and built a full-stack form builder with React, **TypeScript**, and **SQL** improving modularity and deployment scalability.

Longhorn Developers - *Lead Software Engineer* February 2024 – August 2025

- Led development of Degree Audit Plus using **Svelte** and Tailwind, helping students streamline degree planning and progress tracking.
- Integrated ESLint to enforce commit standards and code quality, reducing formatting-related issues by 35% during code reviews.
- Established **CI/CD** pipeline with GitHub Actions, enforcing linting, formatting, and build checks to reduce merge-time bugs by 40%.
- Defined technical roadmap and documentation standards, ensuring cross-team alignment and reducing onboarding time by 50%.

CodeAssist - *Software Engineer* January 2025 – June 2025

- Designed and integrated **LLM** workflows to provide contextual code feedback; developed structured prompts with insight memory pipelines and parsing logic to deliver reliable, actionable insights to students and instructors.
- Designed and executed unit and integration tests with **Pytest** to validate grading pipeline reliability, reducing regression bugs by 30%.
- Accelerated **Docker** execution by 40% by optimizing container lifecycle with caching strategies, reducing submission processing time.
- Stored LLM feedback in **Python** database and updated the **React** frontend to display actionable suggestions.

Jump Finance - *Software Engineer* August 2024 – January 2025

- Automated course registration using **React** and **MySQL** for 2 universities, streamlining enrollment for 200+ students.
- Engineered course list search engine with 50+ MySQL backed endpoints, boosting search efficiency by 50% for student enrollment.
- Resolved invoice generation issues via **GraphAPI**, eliminating 2,000+ missing notifications and saving 100+ hours in manual processing.

PROJECTS

BridgeBill - Texas Convergent

- Implemented NLP models with **PyTorch** and Tesseract to automate invoice processing, saving users 10% of time on manual reviews.
- Implemented OCR using **OpenCV** to extract invoice details with 90% accuracy, reducing manual data entry time by 50% for billing staff.
- Showcased the project at Convergent Demo Day, receiving Runner-Up Best Build Award.

MediGuard - HackTX 2023

- Developed unsupervised fraud detection model with **PyTorch**, identifying healthcare billing anomalies with improved interpretability.
- Designed and built an interactive frontend using **Figma** and Streamlit, enabling easy data input and clear model output visualization.
- Conducted user testing with peers and iterated on feedback, improving UI clarity and model usability for non-technical users.