Praneel Seth

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EDUCATION

The University of Texas at Austin — May 2027
B.S. Computer Science (75 Credit Hours Completed) — GPA: 3.9/4.0
Relevant Coursework: Essentials of AI, Autonomous Intelligent Robotics, Honors Data Structures and Algorithms, Honors Operating Systems, Computer Architecture, Natural Language Processing, Computer Vision, Neural Networks
Organizations: Texas Association for Computing Machinery (ACM), UT EcoCar EV Challenge, Texas Dhoom Dance

SKILLS

Languages: Python, Swift, Java, JavaScript, C/C++ 17, C#, SQL, HTML/CSS
Frameworks/Tools: PyTorch, TensorFlow, React, Node.js, Flask, Streamlit, Xcode, MATLAB/Simulink
Skills: Machine Learning, Neural Networks, Large Language Models, Data Management, Version Control (Git)

EXPERIENCE

Software Engineering Intern | Paycom | Irving, TX — May 2025 - Present
- Enabled 1000+ sales reps to discover and act on nearby business leads by developing a native iOS app using Swift/MapKit and responsive React web interface, driving a 40% increase in proactive outreach
- Integrated Google Places and CoreLocation APIs to filter businesses, reducing average lead-search time by 60%
- Developed a Node.js/MySQL backend handling 50,000+ API requests per day, ensuring seamless bi-directional sync of saved leads with the internal CRM

Software Engineer | Blooming Buds Learning Center | Frisco, TX — Jan 2023 - Aug 2024
- Deployed a public-facing React/Node/Firebase website, improving marketing reach 50% and enrollments 20%
- Built internal timecard and attendance tools with Streamlit and Google Cloud to digitize tracking workflows

RESEARCH EXPERIENCE

Transformer-Based Motion Prediction for Social Navigation | Living with Robots Laboratory — Jan 2024 - Present
- Introduced a non-autoregressive transformer to predict human motion, improving trajectory prediction accuracy in long-horizon social navigation scenarios by 15% compared to baseline models
- Utilized **PyTorch and OpenGL** for implementation, training, and visualization of motion trajectory predictions

Imitation Learning For Autonomous Driving Systems | UT EcoCar EV Challenge Research — Aug 2023 - Present
- Implemented a longitudinal control planner for Autonomous Intersection Navigation for a Cadillac Lyriq
- Designed and trained an expert-based imitation learning model for safe and energy efficient vehicle navigation

Large Language Models and Visual Conceptualization | ACM CHI Conference — Aug 2024 – Jan 2025
- Co-authored peer-reviewed CHI paper investigating the ability of LLMs to reason about affective visual content
- Managed data preparation, prompt engineering, analysis, and visualization; authored the methodology section

PROJECTS

SuperMAN | LLM Tool for the Command-Line Interface
- Won three awards for building an LLM-driven command line tool enabling real-time natural language to Bash translation, deployed on Intel IPEX-LLM hardware
- Deployed fine-tuned Llama 3.2 model on Intel IPEX-LLM accelerator, enabling real-time code generation
- Won Best Use of a Large Language Model, Best Pitch, and Third Place for Use of Intel AI at HackTX 2024

GheithOS Thread Scheduler | Neural Network-based Thread Scheduling Algorithm
- Trained a perceptron-based thread scheduler matching CFS policy performance, improving thread selection and achieving comparable scheduling performance to traditional models such as Round Robin and MLFQ
- Designed model to accept the current runtimes of all active threads as input and output the next thread to run

Shri Ram Mandir Plano | Hindu Temple Mobile Application
- Developed mobile app for iOS and Android OS that allows 1000+ users to schedule services at a Hindu temple
- Published mobile application using Swift and Java for the App Store and Google Play Store, respectively

LEADERSHIP & AWARDS

Vice President of Corporate & Executive Board Member | Texas ACM — Aug 2023 - Present
- Expanded corporate partnership strategy, raising $15K in sponsorships and growing 20+ partners for UT's largest computer science student organization

Hackathon Awards
- Best LLM Hack, Best Pitch, Third Place for Use of Intel AI | HackTX 2024
- 2nd Place for Code and Workflow | UT PGE Energy AI Hackathon 2024