PRAGNASRI VELLANKI

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SUMMARY

Highly motivated and results-driven individual with experience in leading end-to-end data strategy initiatives, designing and optimizing AI and analytics solutions, and developing machine learning and agentic AI models. Proven ability to collaborate with C-level executives, mentor researchers, and enhance user engagement through adaptive cognitive training models.

WORK EXPERIENCE

Data Strategy Analyst, Dave and Busters, Dallas, TX
June 2025 – Present
- Lead strategic data initiatives end-to-end, collaborating with C-level executives to define requirements, prioritize features, and deliver scalable, business-aligned AI and analytics solutions.
- Design and optimize data pipelines and ML-driven analytical models that enable data-driven decision-making across the organization.
- Build and deploy agentic AI solutions for international franchisees, driving intelligent automation and localized performance optimization.

Research Assistant, University of Texas at Dallas, Dallas, TX
June 2025 – September 2025
- Led a research project on cognitive enhancement through virtual reality, collaborating closely with the supervising professor.
- Mentored graduate researchers, providing guidance in experimental design, signal processing, and applied machine learning.
- Engineered digital signal processing (DSP) pipelines to analyze brainwave patterns and developed AI models that adaptively enhance user focus during cognitive training.

Undergraduate Research Assistant, Human Centered Extended Reality Lab, Dallas, TX
May 2024 – May 2025
- Developed a Unity-based XR game integrating CNN, Seq2Seq, and MCMC models to analyze concentration patterns and dynamically personalize gameplay.
- Improved data accuracy by 30% and focus prediction precision by 25%, enhancing user engagement through adaptive cognitive training.

NOTABLE PROJECTS

- Fiji Forecast360 (May 2025) – Led development of a predictive model analyzing 100 years of weather, population, and economic data achieving over 80% forecast accuracy.
- EcoLense – HackUTD (November 2024) – Won Best Beginner Hack Award at North America's Largest Hackathon. AI-powered app that analyzes office spaces to detect damages and suggest eco-friendly solutions.
- AllerEase – WEHack @ UTD (April 2024) – Placed 3rd overall at WEHack UTD and received MLH recognition. Simplifies grocery shopping by helping users identify and avoid allergens in everyday products through image processing.

EDUCATION

B.S. in Computer Science, University of Texas at Dallas
August 2023 – May 2025
GPA: 3.84 / 4.00
Coursework: Machine Learning, Artificial Intelligence, Database Design, Operating Systems, Advanced Data Structures & Algorithms

SKILLS

- **Programming Languages:** Python, Java, SQL, Swift, C/C++, HTML/CSS
- **Tools & Technologies:** Databricks, Power BI, AWS Cloud, Azure DevOps, Unity, Git, Linux, Machine Learning, Agentic AI, Statistics
- **Soft Skills:** C-Level Communication, Product Management, Cross-Functional Collaboration, Problem Solving, Research, Mentorship & Leadership

LEADERSHIP

- Society of Women Engineers – UTD (May 2024 – Present) – VP of Community, Industry Chair, Industry Committee
- Ronnia Langston Foundation (May 2024 – Present) – Lead Coding Instructor