Nicholas Wanner

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EDUCATION

TEXAS A&M UNIVERSITY
BS in Computer Engineering
Minor in Cyber Security
2021 | College Station, TX
GPA: 3.94 / 4.0 (Summa Cum Laude)

SKILLS

Languages: C/C++, Python, C#, JavaScript, CSS
Databases: SQL, NoSQL (e.g., PostgreSQL, MongoDB)
Web Dev: ASP.NET, Vue.js, Express
DevOps: Git, Docker, Kubernetes, Azure
ML & AI: Tensorflow, Huggingface, ONNX Runtime
Other: WSL, Databricks, Anaconda

EXPERIENCE

DELL | Software Engineer
CTO Software PoC Team | 2022 - Present | Austin, TX

- Led a config-driven AI/ML optimization project with ONNX Runtime and quantization, enhancing model speeds by 10-15% and reducing storage by 50% on client devices, facilitating automated optimization for data scientists.
- Designed and implemented adaptable MLOps templates and platforms on Databricks, reducing setup complexity by 30% for data-centric roles along with drift detection to automate retraining at 10% drift thresholds, ensuring consistent accuracy.
- Minimized gaming latency jitter by over 100% with advanced networking solutions for critical applications.
- Developed embedded code for 'NYX' wireless PC controller, improving user experience and connectivity at CES 2022.
- Developed a PoC for better workstation setups, creating an algorithm for optimal peripheral configurations.

CTO Tech Strategy Team | 2021 - 2022 | Austin, TX

- Led Dell Bluetooth mouse pairing solution PoC, eliminating UI interaction and cutting pairing time by over 50%.
- Aided in creating ML-driven thermal management, improving compute efficiency by 12% and extending battery life by 15%.
- Implemented an automated data collection framework, tripling output (3x) and streamlining new test workload integration.
- Collaborated with data scientists on defining workloads and metrics, crucial to models adapting performance to user needs.

DELL | Software Engineer Intern
CTO Tech Strategy Team | 2022 | Austin, TX

- Led touchpad prototype design, significantly boosting user interaction, efficiency, and halving time to market.
- Pioneered touchpad technology leading to a patent, highlighting its innovation and intellectual value.
- Conducted research on pen-on-touchpad technology, evaluating pen types and establishing KPIs.

THOUGHT TRACE | Data Science Intern
Core Insights Team | 2018 | Houston, TX

- Developed a web app for real-time machine learning data labeling and QA, boosting process efficiency by over 35%.
- Created an ontology for dynamic UI validation, automating NLP label integration and cutting manual updates by 75%

TEXAS A&M | Peer Teacher
Dept. of Electrical Engineering | 2019 | College Station, TX

- Instructed 30 students in an accelerated 8-week *Intro to Computer Systems* course.
- Adapted weekly lesson plans for diverse learning styles, boosting student engagement and participation.
- Conducted biweekly and on-demand one-on-one office hours, enhancing individual performance.

PATENTS & PROJECTS

PATENTS

– **Collaboration Touchpad with Interactive Controls [29/851771]**: Innovative touchpad design with illuminated conferencing shortcuts integrated directly into the touchpad surface to boost productivity during virtual meetings.
– **Dynamic Wireless Network Coverage Distribution [18/066050]**: Dynamic wireless coverage enhancement solution using an edge hub to map user locations and adjust network device placement and beam steering.
– **Intelligent Network Resource Allocation[18/065280]**: System on the Nyx platform to intelligently prioritize network resources based on user profiles and activities, improving efficiency in multi-user environments.
– **Auto-Configuration of Dense Mesh Networks [18/354103]**: System to manage dense Wi-Fi networks through dynamic clustering of devices to optimize spectrum use and reduce interference.
– **Interference Avoidance for High Density Ad-Hoc Networks[18/325177]**: Self-configuring system for high-density Wi-Fi networks that autonomously manages wireless channels and bandwidth using dynamic allocation and interference management.

PROJECTS

– **Multi-Instrumental Tactile Synthesizer (MITS)**: Gloves that convert hand gestures into musical instrument sounds, utilizing Arduino and DAW software, demonstrating gesture recognition and sound synthesis.
– **Receipt Reader**: Web app enabling users to authenticate, upload receipts, and extract data with OCR, with seamless Google Sheets integration for expense tracking and analysis.