# Nicholas Wanner

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# **EDUCATION**

TEXAS A&M UNIVERSITY | BS IN COMPUTER ENGINEERING, MINOR IN CYBER SECURITY

May 2021 | College Station, TX Graduated Summa Cum Laude. GPA: 3.94 / 4.0.

## **SKILLS**

LANGUAGES · PYTHON, C/C++, C#, JAVASCRIPT, CSS

**TOOLS** • DATABRICKS, GIT, WSL, DOCKER, ONNX, DATABRICKS

#### **DELL** I SOFTWARE ENGINEER, CTO SOFTWARE POC TEAM

June 2022 - Present | Austin, TX

- Spearheaded an AI/ML model optimization initiative using ONNX Runtime and advanced quantization tools, achieving a Y% improvement in model performance and efficiency for targeted hardware applications.
- Assisted in building an MLOps pipeline in Databricks, migrating model data and introducing data/model drift detection to monitor performance.
- Secured five patents in wireless tech and HID innovations, including WiFi meshes, gaming router optimizations, and touchpad controls.
- Investigated and implemented advanced networking solutions to minimize gaming latency jitter, elevating user experience for performance-critical applications.
- Supported developing embedded code for the 'NYX' wireless PC controller, showcased at CES 2022, enhancing user experience and connectivity.
- Contributed to a PoC project aimed at refining workstation setups, crafting an algorithm that recommends peripheral configurations based on user preferences and system capabilities.

### **DELL** | SOFTWARE ENGINEER, CTO TECH STRATEGY TEAM

June 2021 - June 2022 | Austin, TX

- Spearheaded the investigation and proof-of-concept for a proprietary Bluetooth pairing solution for Dell devices, streamlining connectivity and setting a new standard in device pairing experiences.
- Contributed to developing ML-driven dynamic thermal management systems, achieving a 12% boost in efficiency and 15% longer battery life by adapting system thermals to workload demands.
- Engineered a data collection framework to streamline gathering of training data and assess system setting impacts.
- Collaborated with data scientists to define workloads and key data metrics, playing a pivotal role in models that adapt system performance to real-time user needs.
- Collaborated with vendors and stakeholders in the design and integration of advanced camera technologies for new product incubations, enhancing client system capabilities.

## **DELL** | SOFTWARE ENGINEER INTERN

June 2020 - Aug 2020 | Austin, TX

- Led the design of a novel touchpad technology prototype using C# and .NET, significantly enhancing user interaction and efficiency, and accelerated the project timeline from over two years to just one, expediting time to market.
- Pioneered the touchpad technology that led to a successful patent filing, underlining its innovation and value as intellectual property.
- Conducted research and user studies for pen-on-touchpad technology, evaluating multiple pen technologies and establishing KPIs for project success.

## THOUGHT TRACE | DATA SCIENCE INTERN

Jan 2018 - Aug 2018 | Houston, TX

- Developed web applications to streamline machine learning data labeling and QA processes, enhancing data accuracy and efficiency.
- Created a comprehensive ontology for front-end UI validation, improving application reliability and user experience.
- Actively participated in SCRUM meetings and collaborated with data scientists on problem-solving, contributing to a cohesive team dynamic and project success.

#### TEXAS A&M | PEER TEACHER

June 2019 - Aug 2019 | College Station, TX

- Instructed 35 students in Intro to Computer Systems
- Developed adaptive lesson plans to engage a variety of learning styles, enhancing both personal and group involvement.

# **PROJECTS**

# MULTI-INSTRUMENTAL TACTILE SYNTHESIZER (MITS) | TOOLS: ARDUINO, SWIFT, REAPER (DAW)

Gloves that convert hand gestures into musical instrument sounds, utilizing Arduino and DAW software, demonstrating gesture recognition and sound synthesis.

# RECEIPT READER | TOOLS: NODE JS, HTML, CSS, GOOGLE APIS

Web app enabling users to authenticate, upload receipts, and extract data with OCR, with seamless Google Sheets integration for expense tracking and analysis.