Chester Grudzinski

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Professional Summary

Computer Engineering graduate with hands-on experience in embedded systems, Linux-based infrastructure, and automation. Developed Python tools reducing manual workflows by 80%, implemented real-time embedded hardware monitoring, and performed recovery of encrypted production systems. Seeking entry-level software or systems engineering roles.

Education

University of Texas at Dallas **Jan 2021 - Dec 2025**
Bachelor's degree, Computer Engineering (ABET Accredited) *Erik Jonsson School of Engineering and Computer Science*

Tarrant County College **Jan 2018 - Dec 2020**
Associate's degree, Information Technology

Work Experience

Young and Associates Inc. | *IT Support Specialist - Accounting Firm* **Jul 2025 - Present**

- Designed FastParse, a Python-based GUI tool that parses bank-issued PDF statements into structured accounting data and imports transactions directly into QuickBooks, eliminating manual preprocessing and reducing reliance on paid third-party applications.
- Automated depreciation and amortization workflows by developing a Python automation bot for ATX, increasing data-entry throughput from 2.7 to 12.5 accounts per minute and reducing manual errors.
- Recovered critical financial data from a compromised BitLocker-encrypted NVMe drive, performing forensic-safe imaging, decryption analysis, and full Windows system rebuild to restore business continuity.

Dallas Formula Racing | *Systems Engineer - Battery Management System* **May 2024 - Dec 2024**

- Collaborated with a multidisciplinary engineering team to design a 720 V high voltage battery system with enhanced thermal management, using thermal simulation software and real-time monitoring hardware, which reduced peak cell temperature.
- Developed a battery management system (BMS) in Altium Designer, applying soldering techniques and embedded-system principles, which produced a functional prototype that passed all electrical safety tests
- Programmed and configured Texas Instruments firmware to monitor voltage, current, and temperature using I²C-connected temperature sensors (TMP100), enabling reliable real-time thermal monitoring and early fault detection.

Projects

Trend Analytics Demo (Express, PostgreSQL, Next.js) | *TickerTrends* **Dec 2025 - Jan 2026**

- Built an end-to-end trend analytics system that ingests timeseries data, stores it in PostgreSQL using TypeORM with migrations, and exposes REST APIs for term ingestion, retrieval, and growth-based ranking.
- Implemented scheduled background refresh (cron) and resilient ingestion logic to handle upstream failures (Cloudflare-blocked responses), enabling reliable “exploding trends” analysis and frontend visualization in Next.js

Custom 24-bit CPU Architecture in Verilog | *Computer Architecture* **Aug 2024 - Dec 2024**

- Designed and implemented a multi-cycle 24-bit processor in Verilog, including ALU, register file, control FSM, and memory interface, with a custom instruction set architecture.
- Validated functionality through cycle-accurate simulation and waveform analysis, debugging control logic, state transitions, and timing behavior to ensure reliable instruction execution.

I²C TMP100 on ESP32-C3 | *Dallas Formula Racing* **Apr 2024 - Dec 2024**

- Deployed I²C-based temperature monitoring using a TI TMP100 sensor and ESP32-C3, including hardware integration and data collection over embedded firmware.
- Built a lightweight Wi-Fi HTTP service to expose real-time sensor data for remote monitoring and diagnostics.

Skills

Systems & Hardware: Linux (Debian), Windows, Networking, SMB/NFS, Cloudflare tunnel, System Monitoring, Automation
Programming Languages: Java, Python, JavaScript, TypeScript, C++
Embedded & Hardware: Embedded Systems (C), PCB Design (Altium), SPI, I²C, UART, Soldering, Oscilloscopes
Tools: Git, MATLAB, Verilog, Arduino IDE, Diagnostic Tools