Grayson Hatcher

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Professional Summary

Computer Engineering graduate with hands-on experience developing and evaluating machine learning models using Python and PyTorch in academic and project-based settings. Strong foundation in core machine learning concepts, data preprocessing, and experimentation, with practical use of Pandas and NumPy for cleaning, transforming, and analyzing datasets. Experienced in documenting model behavior and results through coursework and research, including published IEEE work. Collaborative team contributor with exposure to cloud-based development environments and a strong interest in continuing to grow in applied machine learning, model optimization, and research-driven engineering roles.

Education

Kennesaw State University – Bachelor's in Computer Engineering Graduated: December 2025

GPA: 3.61

Skills

Languages and Libraries: Assembly, C, C++, Python, MATLAB, VHDL, YOLO, OpenCV, PyTorch, NumPy, Pandas.
Platforms and Tools: AWS, LTSpice, LaTeX, KiCAD, Linux, Git/GitHub, Vivado, MS Word, MS Excel.
Technical Skills: Data Collection and Analysis, Calculus, ODE, Control Systems, Neural Networks, RF, PCB Design, DSP, Device Networks, VHDL Design for FPGAs.

Experience

Student Research Assistant, Kennesaw State University – Marietta, GA May 2024 – February 2025

- Completed research funded by the **Georgia Department of Transportation.**
- Assisted in designing, implementing, and testing RF hardware techniques to mitigate V2X interference, including Microstrip Filters and Attenuators.
- First authored an IEEE published research paper documenting our results and findings. (Southeast Con 2025)

Shift Manager, Your Pie – Griffin, GA 2020 – 2023

- Managed teams of up to 10 employees, coordinating tasks to maintain operational efficiency and high standards in a fast-paced environment.
- Obtained certifications across all job functions and trained new hires on procedures, equipment operation, and safety protocols, improving team performance and reducing errors.

Projects

Automated Computer Vision Inventory Tracker (Currently Ongoing)

- Developed a POC, including a functioning object recognition model capable of tracking physical location and adjusting inventory count accordingly.
- Serving as Project Manager for a team of four, working on development of an app, cloud database, necessary hardware, and further AI improvement.
- Worked alongside a KSU Business student to pitch to the KSU Entrepreneurship Center, who funded our new LLC.

Dual Mode Rotary Encoder Implemented on an FPGA through VHDL

- Developed a VHDL program to implement an external Rotary Encoder for use on a BASYS3 FPGA board.
- Enabled LED scrolling, angle and RPM calculations, and display information to a seven-segment display based on mode; all controlled from the Rotary Encoder.

Presentation and Publication of Multiple Research Papers

- Presentation of First-Authored Paper at IEEE Southeast Con 2025 (Published).
- Presentation of Co-Authored Paper at EAI Intelligent Transportation Systems Conference 2024 (Published).
- Co-Authored Paper, presented by a peer at IEEE Opportunity Research Scholars Symposium 2025 (Published).