

Joseph Penton

Gardendale, AL 35071

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Education & Awards

University of Alabama at Birmingham

Expected Graduation: May 2024

Bachelor's in computer science, Minor in Psychology

Relevant coursework: Data structures & algorithms, OOP, Web development, Software Engineering, Database Development, Computer Organization/Lang, Cyber-risk management, Penetration Test/Vulnerability.

Scholarships & Awards: Academic Merit Scholarship, Performing Arts Scholarship (band). Dean's list: 2019, 2020, 2023

Technical Skills

Languages: Python, Java, C, x86 Assembly, HTML, CSS, JavaScript

Frameworks: JavaSwing, JavaFX, OpenCV, NumPy, Ajax

Other: Git, Postgres, Autodesk (AutoCAD, Inventor, Revit)

Projects

QuickCards | JavaScript, OpenAI API – Fall 2023

- Dynamically generated flashcards utilizing OpenAI API based on a topic entered by the user, resulting in a **decrease in study preparation**, time studying, and an **increase in overall memorization** of the topic.
- Optimized API call by implementing a serverless method that grouped prompts, increasing API response time by **~200%**.

Precision Farming Controller | Java, JavaFX – Fall 2023

- Developed a JavaFX based program that **interfaces** with a DJI drone to mimic automation of daily farm task; Created a visible grid that allows user to dynamically create objects that the drone can fly to within a physical plane.
- Implemented several common software design patterns (**singleton, composite, and visitor**) to safeguard user features, as well as allow **future scalability**.

Majestic Pies | JavaScript, REACT - Current

- Currently developing a simple e-commerce website for a local, family-owned pizza restaurant that would allow them to capitalize on online orders.
- Plans to implement real-time menu updates, secure payments, and account creation, **resulting in increased customer retention** and **total sales**.

Hear How It Feels | Python, OpenCV, Threading, DeepFace – Fall 2023

- Developed a program leveraging OpenCV and DeepFace to perform **real-time facial expression recognition** using the users web camera.
- Implemented **multi-threading** to ensure the camera did not freeze while playing the sound associated with the expression.