Justin Whitfield

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EDUCATION

- **Mississippi State University** — Starkville, MS
  Bachelor of Software Engineering; GPA: 4.00 / 4.00 — *Graduating – May. 2024*

EXPERIENCE AND PROJECTS

- **The Estée Lauder Companies** — Long Island City, NY
  Software Engineering Intern — *May 2023 - Aug 2023*
  - Led an Agile team to ideate and develop a generative AI chatbot chat sales assistant for the Origins brand, which provided product recommendations and interacted with customers seamlessly.
  - Presented final MVP to global brand president, where permission was granted for further development, a first for an internship project.
  - Utilized PineconeDB for vector storage of products and made semantic searches through OpenAI API queries and embeddings. The application was built using Flask and React

- **Quiz-AI iOS App**
  Personal Project — *Oct 2022 - Current*
  - Developed and launched an iOS app that allows users to photograph a question then uses OCR to extract text from the image to provide an AI generated answer.
  - Integrated OpenAI's API to provide answers to users' questions.
  - Implemented Google Ads to offset the API usage costs.

- **Recipe Vision**
  School Project — *Aug 2023 - Nov 2023*
  - Fine-tuned a YOLO v7 model on a proprietary dataset of annotated grocery images to recognize ingredients from user-submitted photos.
  - Integrated OpenAI API to generate real-time recipes based on the identified ingredients, increasing user engagement and culinary creativity.
  - Utilized Google Images API to dynamically fetch and display images of the generated recipes, enhancing user experience.
  - Engineered a seamless user interface to capture ingredient photos and display recipes, optimizing for user-friendliness and efficiency.

- **Nerf Quadroped Robot**
  School Project — *Aug 2023 - Nov 2023*
  - Engineered a specialized control system to integrate a Nerf gun with a Unitree GO1 quadroped robot, achieving automated aiming and firing.
  - Implemented object recognition algorithms to identify and track human targets, optimizing robot positioning for accurate shooting.
  - Utilized electromagnetic solenoids for triggering the Nerf gun, controlled through serial port communication.

- **NetDeals Ecommerce Website**
  School Project — *Aug 2022 - Dec 2022*
  - Designed and implemented a full-stack e-commerce website.
  - Features included seller dashboards, product listing creation/deletion, buyer cart functionalities, product comparisons, reporting tools, and return capabilities.
  - Backend infrastructure was powered by Django, while the frontend was styled using Bulma CSS.

TECHNICAL SKILLS

Languages and Frameworks: Python, C, C++, Swift, HTML, CSS, Javascript, Flask, Django, React, Tailwind, SQL

Developer Tools: Git, Docker, VS Code, Visual Studio, WSL