Nicolas Slenko

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Education

University of Florida Gainesville, FL

Bachelor of Science in Computer Science, GPA: 4.0 *Aug 2023 – May 2027*

- Relevant Coursework: Data Structures and Algorithms, Introduction to Computer Organization, Programming Fundamentals in Python and C++, Discrete Math

Experience

Software Engineer Fellow July 2024 – September 2024

HeadStarter AI *New York, NY*

Autonomous Vehicle Design Team August 2023 – May 2024

Society of Hispanic Professional Engineers *Gainesville, FL*

- Combined Cascade Trainer GUI and AdaBoost machine learning algorithms to create Haar classifiers for various traffic signs and obstacles to detect in the autonomous algorithm
- Enhanced Haar classifiers by processing thousands of positive and negative obstacle images, achieving an 80+% detection rate. Improved algorithm decision-making speeds by 15+%
- Integrated ultrasonic distance sensors, Picamera, infrared light sensors, and motor components seamlessly using Raspberry Pi GPIO. Programmed the autonomous algorithm in Python

Personal Website Chatbot: Web Workshop Team August 2023 – January 2024

Society of Asian Scientists and Engineers *Gainesville, FL*

- Led an informative session on integrating a trainable chatbot into personal websites using TensorFlow and Keras in Python; trained a neural network model with Stochastic Gradient Descent, achieving 90+% intent accuracy
- Developed chat box with Flask and React, utilizing bag-of-words representation and for intent prediction

Software Engineer Intern May 2023 – July 2023

LightBox *Shelton, CT*

- Created a Python CLI application to automate the initial data setup post-natural disasters, establishing event-specific folder directories linked to a JSON file
- Compiled extensive datasets on ownership details, addresses, and tax parcel information, totaling in the thousands. Utilized environmental data gathering APIs to streamline and optimize querying processes
- Implemented standard data collection methodologies through web-based APIs, ensuring the precision and dependability of geographic information

Projects

FullStack E-Commerce App | *Java, SpringBoot, React, MySQL, Redis, Docker* June 2024 – Present

- Developed a scalable and secure e-commerce application featuring efficient data access with Spring Data JPA, caching with Redis, and a fully functioning checkout process
- Implemented secure user authentication and RESTful APIs with Spring Security and Spring Boot, facilitating seamless front-end and back-end communication
- Created a dynamic user interface with React, utilizing Redux for state management and Material UI for styling

Discord User Enhancement | *Python, Flask, HTML, CSS, JavaScript* June 2022 – May 2023

- Led the development of a full-stack Python application aimed at enhancing the control and censorship of hate speech in Discord servers
- Utilized Discord API and Flask to implement server management features, including file restrictions, phrase/word censorship, and a customizable strike system based on mutable server-specific datasets
- Created and deployed a HTML/CSS-based website hosting the application, which garnered 250+ downloads and received user feedback for improvements
- Conducted research on hate-speech trends utilizing datasets from each server and collaboratively presented findings with Dr. Mirco Speretta at the Fairfield University Innovative Research Symposium 2023

Technical Skills

Languages: Java, Python, C++, JavaScript, Typescript, HTML/CSS
Frameworks: SpringBoot, Flask, TensorFlow, Keras, React
Developer Tools: Visual Studio, PyCharm, CLion, IntelliJ, Datagrip, Docker, MYSQL, Repl.it