Cornelius Monahan

Seeking opportunities to apply technical skills and innovative problem-solving in real-world software development

 GitHub | LinkedIn | (860) 929 - 0223 | corneliusmonahann@gmail.com

Skills

- Python | Java | JavaScript | HTML | CSS | Bootstrap 5 | Flask | Haskell | PHP | Git

Experience

Biopath Research Experience   Southern Connecticut State University   New Haven, CT, USA   06/23 - 07/23
- Assisted in research pertaining to single-cell sequencing analysis of RNA and DNA in an ever-progressing effort to enhance cancer research. Topics included working with command lines, algorithms, statistical softwares, and other technologies to analyze the neo-epitopes of proteins, parts of the cell which can be examined for cancer and mutations.

Undergraduate Grading Assistant   Southern Connecticut State University   New Haven, CT, USA   08/23 - 12/24
- Analyzed and corrected student code related to techniques for representing and processing information, including the use of tables, linked lists, trees, and graphs. Comprehensive foundation of data abstraction including stacks and queues using object oriented approach.

Customer Service Representative   Patterson Oil Company(Patco)   Terryville, CT, USA   04/21 - Current
- Efficiently handle transactions and maintain inventory while building genuine connections with new and regular customers, ensuring a welcoming and personalized experience in a fast-paced environment.

Projects

- **Live Streaming System:** Designed and developed three interconnected servers enabling real-time communication for a live-streaming service, utilizing Python, Flask, and UDP sockets for efficient, low-latency video transmission. Camera multithreading and motion-triggered recording was implemented using OpenCV and DepthAI with OAK-D PoE cameras. While in its foundational stages, this initiative served as a valuable learning experience, enhancing expertise in server architecture and real-time video processing **(12/24)**
- **Sport Betting Assistant Website:** Built using Flask, Scikit-Learn, and Rapid-API, this application supports key features such as viewing trending events, accessing team and player stats, and participating in game-winner predictions for NBA games during a given season. The Decision Tree classifier, machine learning model, was used to forecast game outcomes **(04/24)**
- **Age Detection Program:** Using the publicly available UTKFace dataset, a Convolutional Neural Network (CNN) model was built which analyzed face image data and predicted a person's age given an image **(04/24)**

Education

Bachelor of Science in Computer Science   Southern Connecticut State University   New Haven, CT, USA

- **Key Courses:** Algorithm Design & Analysis, Artificial Intelligence, Data Structures, Database Systems, Internet Programming, Object-Oriented Programming, Operating Systems, Theory of Programming Language
- **Honors**: magna cum laude (GPA: 3.82/4.0)
- **Honors:** 9x Dean's List Recipient at Southern Connecticut State University - *all semesters*
- **Award:** First-Year Research and Artistry Experience Award at Southern Connecticut State University **(2020)**