Joseph L. Rhodes V

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EDUCATION

Case Western Reserve University, School of Engineering – Cleveland, OH **May 2025**
*Bachelor of Science in **Computer Science, Finance***
Minors: Mathematics & Business Management Cumulative GPA: 3.6/4.00

Study Abroad, Manchester, UK **Jan 2024 – Jun 2024**
University of Manchester
- Gained global knowledge and relevant skills in cross-cultural competency, adaptability, and ability to interact with diverse populations

SKILLS

Programing Languages: Java, Python, JavaScript, React.js, SQL, THREE.js, C, HTML, CSS.
Technology: AWS, Google Applications, MS Excel, MS PowerPoint, MS OneDrive, MS Teams, Tableau.
Other Activities: Actor, Dance, Marathon Runner, Soccer, Saxophone, Personal Fitness, Photography, Pickleball, Golf.

EXPERIENCE

Web Developer | West Kirby Warriors | Liverpool, UK **Jun 2024 – Present**
- Launched a dynamic, user-friendly website using React.js, HTML, and CSS, building interactive UI components to enhance user experience and engagement contributing to the growth of the club by 30+ members.
- Collaborated with the club's CEO to design and implement updates using Git for version control, streamlining communication leading to a reduction in project delivery time.

Undergraduate Research Assistant | Case Western Reserve University | Cleveland, OH **May 2024 – Aug 2024**
- Implemented Python scripts to extract and analyze network traffic data from IoT devices by processing PCAP files with the Scapy library.
- Engineered data processing pipelines to structure metadata and raw data and enable classification and state detection of the IoT devices.
- Utilized embedding techniques using the Ollama model to create vector representation of network traffic data, facilitating machine learning and advanced analytics.

PROJECTS

SOA-Based Client-Server Wedding Planner | Python **Apr 2024**
- Developed a client-server application using Web services, HTTP protocol, and JSON markup language to implement Python code to interact with reservation APIs for hotel and band bookings.
- Designed and implemented a strategy to prioritize the earliest available matching slots for hotel and band bookings, while preventing DOS attacks with a deliberate delay between requests.

Healthcare Messaging System | Python **Mar 2024**
- Built a custom server capable of acknowledging client connections, receiving messages, handling disconnects, and maintaining a count of connected clients.
- Modeled a comprehensive chat system protocol encompassing functionalities such as client registration, messaging, direct messaging, and handling of invalid commands and close connection requests.
- Tailored a user-friendly client application utilizing the Tkinter library in Python, featuring a GUI to interact with the server seamlessly.

Neural Network | Python **Nov 2023 – Dec 2023**
- Established a k-means clustering algorithm, showcasing flexibility by supporting variable cluster counts and input dimensions as well as visualizing the convergence of the clustering algorithm through iterative plotting of the objective function.
- Employed gradient descent optimization to design a one-layer neural network with sigmoid activation for linear classification, achieving accurate differentiation of Iris classes.

LEADERSHIP & HONORS

Varsity Football | Case Western Reserve University **Aug 2021 - Present**
- Member of the team's leadership group, and actively collaborates with the coaching staff to enhance communication within my position group, reducing on-field miscommunication, and contribute to decision making to improve overall team performance.
- Recognized for both academic and athletic excellence, earning a position on the Conference Academic Honor Roll and being a 4-time All-Conference award recipient, showcasing dedication to both athletic and scholastic success while maintaining a GPA greater than 3.5.

COURSEWORK

Business: Cases in Finance, Corporate Finance, Accounting, Microeconomics, Marketing, Investment Analysis, Fintech, M&A, Empirical Analysis, Financial Modeling.