Joseph Westhoff

+1 (917) 789 3792 | jtwesthoff12@gmail.com | github.com/jtwesthoff | linkedin.com/in/joseph-westhoff

Education

BS in Computer Science and Mathematics, *Fairfield University* | Fairfield, CT   *May 2024*

GPA: 3.61/4.0

Honors: Pi Mu Epsilon: National Mathematics Honor Society, **Upsilon Pi Epsilon:** Secretary University branch of the National Computer Science Honor Society

Courses: Data Structures | Linear Algebra | Design and Analysis of Algorithms | Probability Theory | Discrete Mathematics | Logic | OS

Skills

Programming   Python, C, C++, Java, LaTeX, HTML, CSS, JavaScript, Fluttr

Software   Linux, Cisco Packet Tracer, Oracle VM, Ubuntu, Wireshark, PyTorch, Scikit-learn, Matplotlib

Technical Skills   Complexity Theory, Programming Languages, Data Structures, Operating Systems

Languages   English, French

Experience

Fairfield University, *Research Assistant* | Fairfield, CT   *Feb 2023 - Present*
- Conducted independent research on the effectiveness of functional near-infrared spectroscopy (fNIRS) in detecting trust levels in humans, exploring existing literature and experimental studies to understand the current state of research in the field.
- Applied machine learning techniques to analyze oxygenation patterns in the human brain measured by fNIRS, utilizing statistical models and algorithms to interpret complex data and draw insights into cognitive processes related to trust perception.
- Communicated objectives, methodologies, and research findings facilitating understanding of the research outcomes.

Social Change, *Software Consultant* | Remote   *Aug 2023 - Present*
- Lead an initiative to fortify the application's middleware against XSS-based attacks, leveraging innovative approaches and conducting research to identify and mitigate potential security vulnerabilities within the Node.js codebase.
- Ensure compliance with PCI-DSS standards and industry best practices by researching and verifying adherence to   security protocols.
- Devised a strategic scaling plan for server infrastructure, blending innovative approaches and leveraging research on Horizontal and Diagonal Scaling methodologies to optimize performance and accommodate future growth.

Rocket Club, *Math Tutor* | New York, NY   *May 2023 - Aug 2023*
- Developed math curriculum for advanced students through the creation of worksheets and comprehensive lesson plans.
- Tracked students' academic progress to ensure attainment of excellence in their studies.

UBS, *Branch Service Associate* | New York, NY | Remote   *Jul 2022 - Oct 2022*
- Ensured operational efficiency by including updated spreadsheets and overseeing stock controls with precision and timeliness, enabling supervisors to make informed decisions and meet deadlines.
- Exhibited a strong commitment to maintaining client confidentiality in a remote work environment, demonstrating adeptness in executing responsibilities while upholding strict privacy standards.
- Cultivated a culture of seamless communication and collaboration within the team, fostering an environment conducive to productivity and synergy, resulting in consistently high-quality outputs delivered to supervisors, facilitating their decision-making process and workflow efficiency.

Projects

Electro-Pneumatic Air Shock Optimization System   *Sep 2023 - Present*

Capstone Project
- Demonstrated adaptability and self-learning by independently acquiring proficiency in Raspberry Pi, Arduino, and wiring techniques to overcome the absence of an electrical engineer.
- Implemented data exchange protocols leveraging JSON files to facilitate seamless communication between Arduino and Raspberry Pi platforms, ensuring system performance and reliability.
- Lead software development efforts, providing guidance and support to a team member falling behind schedule, ensuring project alignment and timely completion of deliverables.

AI Document Simplifier   *Nov 2023 - Dec 2023*

Personal
- Learned and applied Flask's framework to handle file uploads, form submissions, and rendering dynamic content, showcasing adaptability and a proactive approach to learning new technologies.
- Researched and implemented the Facebook BART model, by evaluating and leveraging cutting-edge Natural Language Processing techniques for legal document simplification.
- Collaborated with team members to seamlessly integrate components, effectively communicated, shared expertise, and contributed to architectural discussions and design decisions, fostering teamwork and achieving project goals efficiently.

Company Website   *Bridgeport, CT*

Greater Bridgeport Community Enterprises   *Sep 2021 - Dec 2021*
- Acted as the primary point of contact between the development team and Greater Bridgeport Community Enterprises (GBCE), facilitating clear and effective communication channels to ensure project requirements were understood and implemented accurately.
- Acquired proficiency in JavaScript, CSS, and HTML through hands-on experience and self-directed learning, contributing to the development of a visually appealing and functional website for GBCE.