Joshua Hamilton

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SUMMARY

Highly motivated and results-oriented Human Systems Engineering graduate student with a strong foundation in Cognitive Psychology and Computer Science. Proven experience in research, teaching, and healthcare, with a passion for leveraging technology to improve human-computer interaction and enhance human well-being. Specialize in VR/AR development, some AI, machine learning, and user-centered design. Seeking a role where I can contribute to innovative projects and make a meaningful impact.

EDUCATION

M.S. Human Systems Engineering	January 2025
Arizona State University, Mesa, AZ	**Current Student**

B.S. Cognitive Psychology	
Minor: Computer Science	December 2024
Montana State University, Bozeman, MT	3.60 GPA

TECHNICAL SKILLS

Programming Languages: Java, JavaScript, Python, PHP, C++, SQL, Bash

Front-End: HTML, CSS, React.js, Node.js, Next.js

Tools, Databases, and OS: Node.js, Express.js, MongoDB, MariaDB, Git, GitHub, Windows, MacOS, Linux/Unix, A-Frame Web VR, Unreal Engine BluePrint, Unity, LAMP Stack, MERN Stack, AdobeXd, Figma, Balsamiq.

Certifications: Cisco Certified Network Associate(CCNA, 2024), IRB Certification(2023) , Certified Nursing Assistant (2016)

PROFESSIONAL EXPERIENCE

Montana State University HCI Lab , Bozeman, MT: Volunteer Research Assistant   08/2024 - 12/2024

Assisted in the development of innovative VR training frameworks for collaborative robot(robot) integration in industrial and manufacturing contexts.

- Assisted in the Design of "Mr Hamilton," an AI-powered Metahuman instructor, for personalized and adaptive Cobot training.
- Successfully implemented VR training using Unreal Engine 5.4.4, improving operator skill development and accelerating Cobot adoption.
- Integrated LLM capabilities into the Metahuman, enabling real-time interaction and question answering for assembly workers.
- Assisted in the development of VR training environments that fosters seamless interaction between human intelligence, physical engagement and robotics.
- Addressed the need for enhanced skills development in a rapidly evolving manufacturing landscape.

Montana State University, Bozeman, MT: Teaching Assistant   08/2024 - 12/2024

Assisted with grading and proctoring of student assignments and exams, providing timely feedback and addressing student inquiries.

- Graded a high volume of student assignments, including homework, quizzes and exams. Providing timely and constructive feedback.
- Proctored in-class exams and quizzes, ensuring a fair and secure testing environment for all students.
- Delivered engaging pre-lecture presentations to introduce key concepts and prepare students for upcoming class discussions.
- Provided individual and group academic support to students during office hours and through online platforms.
- Assisted students with course concepts, assignments and study strategies.

Montana State University Attention and Memory Lab, Bozeman, MT: Research Assistant   01/2024 - 12/2024

- RA on cognitive studies including working memory, attention(executive function), serial recall, deception effects. Responsibilities included participant recruitment, data collection, ethical compliance and research support.
- Recruited participants, scheduled appointments and address participant inquiries.

- Administered computer based cognitive tasks, monitored participants performance and ensured strict adherence to study protocols.
- Obtained informed consent, ensured each participant understood their rights and compliance with MSU IRB guidelines.
- Set up and maintained experimental equipment, required to troubleshoot technical issues and ensure data security.
- Required to collect, record and organize data for analysis. Assisted the principle investigator with various study related tasks.

Barnes & Noble Inc, Bozeman, MT: Lead Book Seller   03/2020 - 05/2021
- Proficient in operating the cash register POS system, processing transaction efficiently and ensuring accurate billing.
- Assisted with receiving new shipments, verifying stock accuracy and maintaining a clean and organized stock room.
- Developed strong relationships with customers by providing personalized recommendations and fostering a welcoming and knowledgable atmosphere.
- Increased sales of book of the year through targeted recommendations and product knowledge.

NYS Department of Environmental Conservation, Warrensburg , NY:BackCountry Steward
05/2019 - 09/2019
- Constructed and maintained 150+ miles of backcountry trails, ensuring safe and enjoyable passage for hikers, bikers and equestrians.
- Contributed to the preservation of Adirondack ecosystems by minimizing trail impact and adhering to leave no trace principles.
- Participated in site visits and performed field work under the direction of project managers and environmental scientists.
- Resolved internal conflicts within a team setting.

Aspen Gardens Assisted Living, Helena, MT: CNA   12/2016 - 01/2018
- Elevated patient safety through meticulous monitoring of vital signs (temperature, blood pressure, pulse, pulse respiration) and reporting any abnormalities to nurses promptly.
- Contributed to positive patient outcomes by accurately administering medications(oral, topical, some injectable) following strict doctor's and nurse's orders and care plans.
- Maintained clear and concise communication with patients, families and healthcare team members, ensuring everyone is informed and involved in the patients care plan.
- Safeguard patient privacy by upholding HIPPA regulations and maintaining confidentiality of all patient information.

PROJECTS

A personalized VR Psychotherapy experience: Current
- Currently developing a VR-based CBT avatar that utilizes AI, specially a LLM model API to deliver personalized therapeutic guidance and support to users.
- Creating a immersive and engaging VR environment within A-frame web frame work and unity, allowing users to practice CBT techniques in a safe and controlled virtual space. With the primary goal of fostering and improving mental well being.

Reducing Human Error And Enhancing Security in EHR Systems   Fall 2024
- Created EHRShield, an AI powered UX/UI solution that addressed critical security vulnerabilities in health care systems, proactively identifying and mitigating potential data breaches arising from human error and outdated software design.
- Designed EHRShield to enhance the efficiency of user experience of EHRs by providing real time feedback and tailored training to healthcare professionals, with the goal of improving patient data security and streamlining workflows.

Saucy: Personalized Recipe Recommendations with Interactive Machine Learning   Fall 2024
- Developed a web application that provides personalized recipe recommendations tailored to individual preferences and dietary needs creating a unique and enjoyable cooking experience.
- Leveraged LLM and GPT technology to dynamically generate recipes offering users a more evolving and engaging experience.

EXTRACURRICULAR EXPERIENCE

MSU PSI CHI Chapter Web Master, Bozeman, MT   09/2024 - present
- Attended weekly meetings to collaborate with other psychology students and to give updates about PSI CHI webpage.