Jeffrey (Jeff) Black

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Available to start: Full Time – May 2023 | Part Time – Immediate

Objective

Software engineer graduating with an M.S. in Human Factors Psychology, seeking to apply expertise in human-computer interaction to software development, delivering **thoughtful** software that meets **diverse** user needs.

Professional Experience

Graduate Researcher | ***AVANT Lab*** | *Python, PsychoPy, R, User Research, Data Analysis* ***Aug 2021 – Pres***

- Leveraging Python, PsychoPy, R, and Excel to streamline experiment programming and analyses.
- Co-authored >10 publications pioneering scalable methods for researching digital scams and misinformation.
- Aiding a $5,000,000 NSF-funded project to create programs that shield older adults from digital deception.
- Leading a team of 9 undergraduate student researchers to boost speed of research processes by >10x.

Software Engineering Intern | ***Infor*** | *C#, .NET, SVN, OAuth 2.0, APIs, SFTP, OOP, TDD, Agile* ***Jun 2021 – Aug 2021***

- Utilized TDD to develop a C#/.NET-based ERP system used by >3,900 public sector organizations.
- Implemented OAuth for SharePoint Provider, allowing in-app access to SharePoint REST APIs and content.
- Designed an SFTP File Provider using SSH.NET, enabling clients to link SFTP file systems to their ERP config.
- Debugged and added logs to trace a production-only error preventing critical interfaces from displaying.

Software Engineering Intern | ***Dock Blocks/SMI*** | *JavaScript, HTML, CSS, 3D, Material* ***May 2018 – Aug 2018***

- Built a 3D web app with JavaScript, HTML, and WebGL, reducing time to make 3D dock visualizations by 99%.
- Taught Google's Material Design guidelines to staff and clients, facilitating communication about web design.
- Participated in business meetings, discussing business strategies and demoing the 3D dock modeler.

Projects

Volunteer Recommender System | *User Research, Data Analysis, Prototyping, Miro* | *Report* ***Aug 2022 – Dec 2022***

- Led a user-centered design team to create a system that recommends volunteering opportunities to retirees.
- Ran 6 field interviews and Grounded Theory analyses to craft a theory of how retirees decide to volunteer.
- Prototyped and evaluated 3 recommender systems with varying support for volunteers' decision-making.

Rewards System | *JavaScript, Node, React, Material, AWS, Lambda, SQL, APIs, Git* | *Demo* ***Jan 2021 – May 2021***

- Built a serverless web application that rewards truckers for safe driving via a point-based rewards system.
- Led frontend development, using React and Material-UI to create intuitive and appealing interfaces.
- Developed >50 Lambda functions and REST APIs in AWS to execute SQL, providing JSON data to frontend.
- Utilized Azure DevOps to deliver quality work ahead of schedule, being nominated to present the app to AWS.

Alien Invasion Game | *Unity, C#, Git, OOP, Game Design, Game Development, Agile* | *Play* ***Jan 2021 – May 2021***

- Designed a 2D game using Unity, C#, and OOP, featuring astronauts fighting alien invaders on a spaceship.
- Implemented modular level, weapon, and movement systems, reducing gameplay development time by 95%.
- Supported the team through a DevOps role, managing the version control and hosting pipeline.

VR Networking Education Tool | *Unity, C#, VR, Python, Networking, TCP, UDP, OOP* | *Demo* ***Aug 2020 – Dec 2020***

- Created the world's first VR-based networking science education tool, teaching TCP & UDP in an intuitive way.
- Designed and developed core socket and interaction mechanisms using Unity, C#, VR frameworks, and OOP.
- Supported team members by teaching them how to use Unity and managing version control.

Education

Clemson University ***Aug 2017 – Pres***

M.S. (+ thesis) in Human Factors Psychology (4.00 GPA) *Aug 2021 – Pres*

- *Courses: Human-Computer Interaction, Usability Evaluation, VR Systems, Adaptive Decision Support Systems*

B.S. in Computer Science, minor in Psychology (3.81 GPA) *Aug 2017 – May 2021*