Jeff Black

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Education

Clemson University | Clemson, SC | Aug 2017 - pres

Aug 2021 – Dec 2024: Graduate Student in Human Factors/Engineering Psychology | 4.00 GPA Aug 2017 – May 2021: B.S. in Computer Science with a minor in Psychology | 3.81 GPA

Professional Experience

Applied Visual Attention and Technology Lab

Graduate Student Researcher | Clemson, SC | Aug 2020 – Jun 2021; Aug 2021 – pres
Researching online inauthenticity and supervising a research team under Dr. Dawn Sarno. Investigating factors that affect susceptibility to digital deception, like phishing scams and misinformation.

Infor

Software Engineering Intern | Greenville, SC | Jun 2021 - Aug 2021

Developed software that helps run cities with Infor Public Sector. Delivered critical features surrounding file storage and authentication/authorization, utilizing .NET and agile processes in a legacy system.

Dock Blocks

Software Engineering Intern | North Charleston, SC | May 2018 - Aug 2018

Designed and developed a high-impact web application that lets sales reps create parts lists and 3D renderings of docks in 5% of the time it takes to do it by hand. Utilized JavaScript and WebGL.

Strategic Marketing International

Marketing Intern | North Charleston, SC | May 2018 - Aug 2018

Taught clients and company executives basics of web design so that they could communicate with web designers more effectively. Lessons were centered around Google's Material Design guidelines.

Portfolio Showcase

Retiree Volunteerism Recommender System | Aug 2022 - Dec 2022 | Documentation

Coordinated a user-centered design team that used grounded theory to design a system that recommends volunteering opportunities to retirees through email. Designed and ran user studies on it.

Project APEx: Attitudes and Perceptions Towards Exoskeletons | Nov 2021 - Feb 2022

Collaborated with Dr. Divya Srinivasan and the South Carolina Research Authority to gauge industry attitudes towards assistive exoskeletons. Conducted interviews and surveys at an exoskeleton expo.

Better Truckers | Jan 2021 - May 2021 | Video demo

Led UI design, backend architecture, and development of a serverless web app that incentivizes truckers to drive better. Utilized React, Material-UI, and numerous AWS services. Presented it to AWS.

Project Kestrel | Jan 2021 - May 2021 | Playable demo

Designed and developed a playable demo for a top-down, dungeon-crawling, shooter game using Unity. Led design and implementation of map/environment, weapons system, and movement system.

The Spatial Network | Jul 2020 - Dec 2020 | Video demo

Built a virtual reality experience that teaches people basic networking science concepts in a highly intuitive, highly interactive way. It is the first networking science education tool to take advantage of VR.

Track My Waste | Jan 2020 - May 2020 | Documentation

Coordinated a user-centered design team that used contextual design to design and user-test an app that leads users into living more sustainable lifestyles. Wrote 300+ pages documenting the process.

Publications & Active Research

In Progress

Deception Awareness and Resilience Training | Media Forensics Hub and Collaborators | Read more
Assisting in an NSF-funded project that is creating tools that are specifically tailored to train older adults to recognize and protect themselves from digital deception.

Individual differences in vulnerability to phishing, fake news, and vishing | Black, J.

Master's thesis on whether users who fall for one form of digital deception (e.g., phishing) also fall for other forms of online deception (e.g., fake news, phone scams), and why.

Towards a theory of general online inauthenticity | Black, J., Warren, J., Sarno. D.M., Warren, P.L. A scoping literature review to devise a theory of online inauthenticity that spans across different digital deception domains, including phishing emails, fake news, and social media trolls.

Phishing detection under time pressure | Black, J. & Sarno., D.M.

A user study to investigate how time pressure (i.e., strict time limits) affects peoples' ability to detect phishing emails. Designed, conducted, analyzed, and wrote the manuscript for the study.

Gamified phishing detection training | Sarno, D.M. & Black, J.

A user study about how game-like elements in a training exercise may be able in increase motivation for users to engage in such training.

Under Review / Completed

Sarno, D.M., **Black, J.** (Under review). Who gets caught in the web of lies?: Understanding susceptibility to phishing emails, fake news headlines, and scam text messages. *Human Factors and Ergonomics Society*

Sarno, D.M., Harris, M., **Black, J.** (Under review). Which phish is captured in the net? Understanding phishing susceptibility and individual differences. *Applied Cognitive Psychology*

Sarno, D.M., **Black, J.** (2022, October). Fall for one, fall for all: Understanding deception detection in phishing emails, scam text messages, and fake news headlines. *Human Factors and Ergonomics Society 66th Annual Meeting*

Sarno, D.M., **Black, J.**, Harris, K., Harris, M., Koontz, P., Paradise, E. (2022, April). Fool's gold: Digital literacy and impulsivity predict susceptibility to multiple forms of online deception. *Clemson University 17th Annual Focus on Creative Inquiry Forum*

Harris, M., **Black, J.**, Sarno, D.M. (2022, April). Caught in the net: Predicting phishing susceptibility across the lifespan. *Clemson University 5th Annual Student Research Forum*

Sarno, D.M., **Black, J.**, Paradise, E., Stokx, J., Summers, M. (2021, November). Predicting phishing susceptibility using the phishing awareness scale (PAS). *Psychonomic Society 62nd Annual Meeting*

Skills

Tools

Python, C#/.NET, JavaScript, Node, React, C++, HTML/CSS, Material-UI, SQL, Unity, AWS, Linux, R/RStudio, SPSS, Qualtrics, PsychoPy, Figma, Adobe XD, Adobe Photoshop, Excel, PowerPoint

Computer Science/Software Skills

Full-stack development, test-driven development, iterative development, object-oriented design, user-centered design, virtual environment design, contextual design, UI/UX design, Agile, Jira, Scrum

Research Skills

Research design, data analysis, user research, field studies, quantitative methods, qualitative methods, team leadership, technical writing, public speaking, project management, peer review, critical thinking

Soft Skills

Dependability, leadership, teamwork, friendliness, independence, self-starting, adaptability, honesty, open-mindedness, communication, active listening, positive attitude, empathy, compassion, humor