

Sepehr Sabeti

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EXPERIENCE

Leidos, Washington, DC — *Data Scientist*

October 2022 - PRESENT

- Interning with Civil Group on offering AI-driven solutions for **intelligent budget allocation** and decision support systems
- Developing state-of-the-art **AI/ML models** in partnership with **Subject Matter Experts** for context-aware predictive models
- Developing end-to-end **ML pipelines** from data acquisition to **maintenance prediction**

ServiceNow, San Diego, CA — *UX Researcher Intern*

July 2022 - September 2022

- Interning with **AI platform** team on offering **AI-enabled solutions** for enterprise
- Conducting and designing research studies exploring **customer needs in Human-AI interaction**
- **Contributing** to research operation and design **documentation** in **close collaboration with different stakeholders**

PROJECTS

Practices for Capturing Cost of Maintenance Operations in Maintenance Management Systems — *UX Research Consultant*

November 2022 - Present

- Worked on **National Cooperative Highway Research Project (NCHRP) 20-05/Synthesis Topic 54-22** as a UX Researcher consultant
- Collaborating with the panel and research team on **survey design** and **research plan**
- Documenting and analyzing the **results of surveys** and **case studies**

Human-in-the-loop Safety System for Enhancing the Safety of Highway Work Zones — *Researcher and Developer*

October 2019 - Present

- Developing and designing an AR-based and AI-enabled safety system for highway workers funded by **National Science Foundation (NSF)**
- Running multiple rounds of usability tests using **Wizard of Oz** for evaluating the **usability** of the designed system
- Designing and developing a **Virtual Reality** experiment for measuring the response time to multimodal notification using Unity. **For a demo click [here](#).**

Scalable And Extensible Machine Learning for Predictive Road Maintenance — *Lead Researcher and Developer*

May 2019 - December 2022

- Building and designing a predictive software pipeline that includes **data management system**, **data processing** **Virginia Department of Transportation (VDOT)** and **Leidos**
- Working with state DOT engineers in developing **tailored Machine Learning frameworks** for **data-driven decision support system** and **intelligent budget allocation**
- **Reporting and documenting** research efforts and conducting research planning in close collaboration with stakeholders

EDUCATION

UNC Charlotte, Charlotte, NC — *Ph.D.*

May 2019 - May 2023 (Expected)

Infrastructure Systems

UNC Charlotte, Charlotte, NC — *MS*

January 2020 - May 2022

Computer Science

RESEARCH INTERESTS

Virtual Reality, Augmented Reality, Human Factor, User Research, Machine Learning, Data Science

SKILLS

Python, Java, C#, JavaScript, Android, Unity, Quantitative User Research, Qualitative User Research, Mixed-method User Research, System Usability Test, OOP

PROFESSIONAL MEMBERSHIP

Member, TRB Standing Committee of Visualization in Transportation (AED80)

Member, ASCE Committee of Data Sensing and Analysis (DSA)

Friend Member, TRB Standing Committee of Maintenance Management Systems (AKT70)

PUBLICATION

Sabeti, S., Shoghli, O., Baharani, M., & Tabkhi, H. (2021). Toward AI-enabled augmented reality to enhance the safety of highway work zones: Feasibility, requirements, and challenges. *Advanced Engineering Informatics*, 50, 101429.

Sabeti, S., Shoghli, O., & Tabkhi, H. (2022). Toward Wi-Fi-Enabled Real-Time Communication for Proactive Safety Systems in Highway Work Zones: A Case Study. In *Construction Research Congress 2022*

