

JASON ALEXANDER FOTSO-PUEPI

☎ 301-260-5424 ✉ jason.a.fotso@gmail.com 🌐 fotso.phd 🔗 linkedin.com/in/jason-fotso 📍 Germantown, MD

Education

Purdue University

Aug. 2023 – May 2026

M.S. in Computer Science (2024 GEM Fellowship)

West Lafayette, IN

- Research interests: embodied collaborative agents, applied ML, XR, and HCI
- Relevant coursework: Machine Learning, Computer Graphics, Human-Computer Interaction

University of Maryland, College Park

Aug. 2021 – May 2023

B.S. in Computer Science

College Park, MD

- Relevant coursework: Data Structures, Algorithms, Programming Languages, UI/UX, Web Dev

Montgomery College

Aug. 2019 – May 2021

A.A. in Computer Science (Early College Program)

Germantown, MD

- Relevant coursework: Object-Oriented Programming with C++, Java, Entrepreneurship

Research Experience

Microsoft

May 2025 – Aug. 2025

Research Intern (Managers: Sasa Junuzovic, Kori Inkpen)

Redmond, WA

- Designed **CodeSwitch**, a **VS Code** voice-embodied peer programming agent framed as a virtual colleague
- Integrated **OpenAI Realtime API** with **VASA** embodiment, memory, and code-context grounding
- Validated collegiality with longitudinal and short-term CodeSwitch studies (**CSCW 2026** in prep)

Adobe

May 2024 – Aug. 2024

Research Intern (Managers: Vova Kim, Danny Kaufman, Thibault Groueix)

Fremont, WA

- Built physical-parameter ID for 3D assets using **Segment Anything**, **Gemini VLM**, and structured parts
- Refined estimates via **NVIDIA Simplicits** sim-in-the-loop re-queries with physics videos

Google

May 2023 – Aug. 2023

Student Researcher (Managers: Mar Gonzalez-Franco, Eric Gonzalez)

Fremont, WA

- Built a VR text-entry test bed in **Unity/C#** with configurable hand/keyboard layouts and metric logging
- Ran VR typing studies comparing entry methods across hand and keyboard representations
- Co-authored findings as first student author in our **IEEE ISEMV 2024** publication

Microsoft

May 2022 – Aug. 2022

Undergraduate Research Intern (Managers: Kori Inkpen, Sasa Junuzovic)

Redmond, WA

- Built a VR hybrid-meeting endpoint in **Unity/C#** studying content placement and avatar body agency
- Explored virtual reflective surfaces as cues for remote-desktop and VR users
- Targeted gains in spatial awareness, body ownership, and co-presence in hybrid meetings

Lab for Neurodevelopment of Reading & Language, UMD

Aug. 2021 – May 2023

XR Developer (Advisor: Dr. Donald Bolger)

College Park, MD

- Delivered a **5+ app** AR/VR literacy suite in **Unity/C#** for children with learning disabilities
- Built a VR word-formation game linking **semantics**, **structure**, and **phonics** in 3D space
- Supported a **Maryland Innovation Initiative (MII)** grant by demonstrating the suite's educational impact

GAMMA Lab, University of Maryland

July 2021 – May 2023

Research Assistant (Advisors: Dr. Aniket Bera, Dr. Dinesh Manocha)

College Park, MD

- Prototyped an AI conversational agent on **HoloLens** in **Unreal Engine/C++** for on-device embodied dialogue
- Added **real-time** gesture and facial generation so the agent could express nonverbal cues
- Helped secure a **TEDCO** grant by demonstrating the agent prototype

Google CS Research Mentorship Program

Oct. 2021 – Dec. 2021

Mentee (Mentor: Mike Mozer)

Remote

- Completed a 4-month CS research mentorship under Google Researcher Mike Mozer
- Studied research-problem framing in education innovation, HCI, and visualization
- Prototyped encoding variability, eye-tracking, and soft highlighting for educational VR in **Unity/C#**

Teaching & Professional Experience

Purdue University, CS Department

Aug. 2023 – Dec. 2025

Graduate Teaching Assistant

West Lafayette, IN

- Mentored **120+** students in labs and office hours for **CS Programming I** and **Discrete Math**
- Taught **Java** fundamentals (recursion, threads, GUIs) across 4 semesters with lab instruction and examples
- Graded **300+** proofs, automata, and algorithm-analysis assignments with consistent feedback

University of Maryland, CS Department

Jan. 2022 – May 2022

Teaching Assistant, CMSC838C: Advances in XR (Dr. Ming Lin)

College Park, MD

- Supported graduate **XR** systems coursework under Dr. Ming Lin with lesson planning, grading, and logistics
- Mentored **30+** students through grading, lesson planning, and project/concept discussions
- Covered display, 3D graphics, haptics, audio, locomotion, animation, and presence in lectures and reviews

iD Tech

May 2021 – Aug. 2021

Certified Virtual Instructor

Remote

- Taught **Unity, Python, Java**, and game design to **50+** students via project-based lessons
- Created small interactive projects so students could practice abstract programming concepts hands-on

Montgomery College Entrepreneurship Camp

May 2021 – Aug. 2021

Lead Instructor

Germantown, MD

- Launched “Social Innovators” and “Intro to Innovation” summer tracks with curricula and lesson sequences
- Mentored **75+** students on entrepreneurship and product development into early product concepts

Projects & Leadership

MDD: Multimodal Dataset

Aug. 2023 – May 2026

Lead Contributor (Advisor: Dr. Aniket Bera, Purdue IDEAS Lab)

West Lafayette, IN

- Created **MDD**, the largest text/music/motion duet-dance dataset (**10.34 hrs, 15 genres**)
- Produced **10K+** annotations with a **16-camera** OptiTrack/**SMPL-X** pipeline for scalable training data
- Benchmarked **MDM**, **InterGen**, and **Duolando** on FID/beat-alignment (**ICCV 2025 Outstanding Paper**)

Spray

Aug. 2022 – Present

Founder

College Park, MD

- Shipped **Spray (sprayar.art)** to the **iOS App Store** and **Google Play** for AR street art and geotagged sharing
- Embedded **Unity AR** (ARKit/ARCore/Lightship) in **Expo/React Native** with Firebase, Mapbox, and Replicate
- Ran **30+** artist interviews and won **2nd place** at the UMD Dingman Pitch Competition

XR Club at UMD

Dec. 2021 – May 2023

President

College Park, MD

- Grew a **300+** member community (**600+** Discord) as president and hosted **30+** XR workshops
- Partnered with UMD CS, Immersive Media Design, and Break Through Tech on AR/VR/WebXR/HoloLens workshops
- Advanced our **NASA SUITS** proposal to finalist status with TerpVISIO demos

AmazonNext Program

Dec. 2021 – May 2023

Member, 1st Cohort

College Park, MD

- Joined the first AmazonNext Scholars cohort with mentorship from Amazon engineers
- Built product, design, and engineering fundamentals through Amazon-led labs and reviews
- Placed **4th** in the Amazon-UMD Design Challenge with an **Alexa** skill on **AWS**

Montgomery College Early College Program

Aug. 2019 – May 2021

Member, 1st CS Cohort

Germantown, MD

- Joined the inaugural CS Early College cohort as one of **15** dual-enrollment students
- Earned **60+** college credits two years ahead of peers through dual enrollment

Publications

- Gupta, P., **J. A. Fotso-Puepi** (2nd), et al. *MDD: Text/Music Conditioned Duet Dance*. **ICCV 2025** Outstanding Paper
- Gonzalez-Franco, M., et al. (incl. **J. A. Fotso-Puepi**). *Hovering Over the Key to Text Input in XR*. **IEEE ISEMV 2024**

Technical Skills

Languages: Python, TypeScript, JavaScript, Java, C#, HTML/CSS

Frameworks: React Native, Expo, Next.js, Node.js, Tailwind CSS, Unity, Unreal Engine, HLSL, XCode

AI/ML: PyTorch, NumPy, Pandas, OpenCV

Cloud & Data: AWS, Azure, Google Cloud, Firebase, PostgreSQL, MongoDB, Docker, Kubernetes, GitHub, Linux

Tools: Trello, Tableau, Agile, Scrum