Elijah Zulu

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EDUCATION

Columbia University New York, NY
C.P Davis Scholar | B.S in Computer Science *Sep 2019 – May 2023*

WORK EXPERIENCE

Undergraduate Research Assistant May 2021 – August 2021
Columbia University - Internet Real-Time Lab *New York, NY*
- Developing new abstraction and discovery mechanisms to make programming large-scale IoT systems feasible

Undergraduate Researcher June 2020 – May 2021
Columbia University - Graphics and User Interfaces Lab *New York, NY*
- Working under the Graphics lab to implement GNSS/SLAM approach to navigation using Augmented Reality
- Acted as one of the leads in developing an object recognition pipeline for Columbia Space Initiative's NASA SUITS challenge

Front-End Web Developer December 2020 – April 2021
Columbia University School of International and Public Affairs *New York, NY*
- Refactored and added additional functionality to an in-house tool that facilitates the design of classes on Courseworks/Canvas.
- Conducted User Interface studies involving professors and course assistants

Technical Coordinator, Editor Sep. 2019 – Present
Columbia University Picker Center Digital Education Group *New York, NY*
- Worked in the post production of a Climate Change documentary for the UNDP (United Nations Development Programme)
- Developed content for a MOOC (Massive Open Online Course) about using video case studies for education in Columbia's EMPA Program

Undergraduate Teaching Assistant Jun. 2020 – Aug. 2020
Columbia University: School of Engineering and Applied Science *New York, NY*
- Assisted in the teaching of an Introductory Robotics course
- Organized and Co-Taught an elective course focusing on the creative applications of technology
- Mentored high-school students preparing for college and careers in engineering

PUBLICATIONS

Beyond LunAR: An augmented reality UI for deep-space exploration missions 30 Nov 2020
- Co-authored under the guidance of Professor Steven K. Feiner and Columbia's CGUI Lab
- Awaiting peer review but accessible here (https://arxiv.org/abs/2011.14535)

PROJECTS

National Museum A.R Tour | *C#, Unity3D, Vuforia SDK, EasyAR SDK* June 2018 – Present
- Developed an interactive Augmented Reality tour app for the Lusaka National Museum
- Worked with the Smithsonian Digitization Program to provide access to 3D models through the app
- Introduced the Museum to a newer, more tech savvy, generation increasing museum foot traffic

Spark AR | *SparkAR, Javascript, Texture Mapping, 3D Modelling and Animation* October 2019 – Present
- Facebook SparkAR developer for the Instagram platform
- Garnered over 200K organic impressions
- Collaborated with other artist and creators to bring a new level of engagement between them and their audience using Augmented Reality

TECHNICAL SKILLS

Languages: C#, C/C++, Java, Python, JavaScript(VUE and React Native), HTML/CSS,
Developer Tools: Google Cloud Platform, Git, VS Code, Visual Studio, Bash
Design Skills: Adobe Creative Cloud, 3D Animation, 3D Modelling and Texturing, Motion Graphics, WordPress
Libraries: OpenCV, NumPy, Matplotlib, pandas