TOMER KRAYZMAN

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Education

Clearance: Secret

University of Maryland - College Park
- ► M.S. Computer Science
- ► B. S. Computer Science and B. A. Chinese (GPA: 3.5/4.0)

May 2022
May 2021

Experience

MITRE Corporation|*Software Engineer* *July 2022 - Present*
- ► Building a VR space visualization simulator using Unreal Engine 5, using MQTT to collect data on user analytics for further improvement of UI/UX in a virtual reality setting
- ► Developing a new mixed reality SDK for Army headsets in Unity with a focus on making having this version be more developer-friendly, enhancing existing features such as landmark tracking
- ► Worked with a new experimental SDK developed by Microsoft and developed apps with a new ability to display media and 3D models with Army AR headsets over realtime environments
- ► Created and optimized dynamic terrain and mesh generation of the Earth in Unity for a flight simulator. Developed flight controls for the simulator as well

MITRE Corporation|*Software Engineer (Part time)* *May 2021 - May 2022*
- ► Developed an AR keyboard that is controlled by eye tracking sensors in the Hololens 2 using Unity, C#, and the Mixed Reality Toolkit (MRTK) alongside one other intern
- ► Enabled the program to grant the user the ability to type letters or premade words with only gaze/pupil movement and a physical 'select' button

Capital One|*Software Engineering Intern* *June 2020 - August 2020*
- ► Built a web portal from scratch functioning as a base of information for an internal hosting service operated by Capital One using Angular while improving site performance using Scully.io
- ► Constructed intake forms using the Angular CLI and connected the form to the Github Issues API to automate an existing onboarding process offered by an the hosting service
- ► Implemented CI/CD by creating unit tests for each new component added to the portal, managed and maintained test coverage by creating a pipeline using Jenkins and Jest

MITRE Corporation|*Software Engineering Intern* *June 2019 - October 2019*
- ► Developed new features for a dependency mapping tool used to manage government resources using Vue.js in a team of 3 developers
- ► Created data visualizations using D3.js for the mapping tool and an internal government search engine and successfully integrated a newly updated company-made framework

Projects and Research

Army Research Lab ORAU Fellowship |*Resesarch* *June 2021 - May 2022*
- ► Researched ways to integrate Human AI Teaming (HAT) in Army IVAS headsets by improving battlespace visualization in AR. Used the Battlespace Visualization Interface (BVI)
- ► Created simulations to be later integrated into AR headsets using Python and TensorFlow
- ► Publications: Novel AI Decisions Aids for Decision Dynamics, Deception, and Game Theory The Future of Collaborative Human-Artificial Intelligence Decision-Making for Mission Planning

Mixed Reality Exploration Toolkit (MRET)|*Research and Development* *December 2020 - May 2021*
- ► Researched ways to improve NASA's MRET, updated mixed reality UI and created new tutorials in Unity using C# to enhance userability while collaborating with a team of 4 other students
- ► Modified and adapted the toolkit to allow for use by both the HTC Vive and the Oculus Rift

Skills

- ► Proficient in Java, HTML/CSS/JavaScript, Angular, C#, SQL, MongoDB, C++, Python
- ► Python libraries: Tensorflow, scikit-learn, OpenCV, PyTorch, Cuda, CuPy
- ► Tools: AWS, Git, InVision, Adobe Photoshop/Illustrator, Unity 2D/3D, Linux OS, macOS
- ► Foreign Languages: Russian, Hebrew, English, Spanish, Chinese, currently learning Hmong