

**Title:** *University of Chicago augmented and virtual reality research internship*

**Lab:** *Khomtchouk Lab*

**Location:** *Department of Medicine, Section of Computational Biomedicine and Biomedical Data Science, Institute for Genomics and Systems Biology*

**Status:** *Remote. Successful applicants may receive research class credits (if applicable) and/or research mentorship/publication opportunities; open to undergraduate students, graduate students, visiting scholars, etc. Duration: 3-12 months.*

**Project Title:** *Augmented and virtual reality technology for biomedical data visualization*

**Project Description:** *It is predicted that virtual and augmented reality will be the most likely “next-generation computing platform” after personal computers and smartphones, allowing users to integrate virtual objects into the real world, thereby taking graphics beyond the digital 2D screen (phone, desktop monitor, etc.) directly into real 3D space (room, office, outdoors, etc.), effectively “augmenting” a user’s perception of the reality around them. Most user applications to-date have focused on the gaming, entertainment, education, and retail markets, with relatively sparse adoption in the life sciences industry (particularly in academia), creating an emerging opportunity for biomedical research, where scientific visualization and big data analytics represent focal points of interest and areas of unmet need in the augmented reality (AR) field. As such, the focus of this project is to design and implement advanced AR-driven applications for biomedical data visualization, analysis and discovery.*

**Preferred Qualifications:**

**Skills**

- Interest in gaining hands-on experience working with AR/VR applications
- Strong working knowledge of either: C/C++, Rust, and/or Cython
- Experience or interest working with mobile AR applications on iOS or Android
- Desire to apply your skills to open-source software development on Github (and knowledge of version control (git) best practices)
- Familiarity/experience/interest with visualization, high performance computing, OpenGL, or open-source software development kits (ARKit, ARCore, etc.) is a plus.

For project details -- if you are interested in this opportunity and would like to receive further information, please forward your CV/resume to [bohdan@uchicago.edu](mailto:bohdan@uchicago.edu)