

EDUCATION

The University of Chicago, Chicago, IL GPA: 3.77/4.00

BS in Computer Science, specialization in Human Computer Interaction, expected June 2022

Minor in Music, expected June 2022

SKILLS

Languages: Python, C, Elm, Clojure

Computer: Proficient in Microsoft Excel, Adobe Photoshop, Adobe Premiere

EXPERIENCE

Bohdan Khomtchouk Lab, University of Chicago Department of Medicine (Section of Computational Biomedicine and Biomedical Data Science)

Product Manager, Software Engineer, June 2020-present

- Designed and oversaw creation of augmented reality application to display 3D complex networks
 - Intended to advance visualization of 3D networks (beyond standard and unintuitive panning/zooming on 2D displays) for clinical doctors and medical researchers
 - Led team of 5 undergraduates to design and implement the prototype from scratch, including XML parsing, nodes/edge rendering, force-directed visualization algorithms, and UI
 - Used C# and Unity, with the ARCore and ARKit libraries for platform-specific AR features
- Continue assisting Dr. Khomtchouk during academic year with academic writing on future of WebXR using WebAssembly, and redesigning a more advanced product for AR visualization of biomedical data with Rust/JS
- Co-delivered keynote presentation with Dr. Khomtchouk for the 21st annual Scheme Workshop (as part of the International Conference of Functional Programming) to discuss [applications of Lisp-based languages in medical research and higher education](#)

University of San Francisco Health Informatics, San Francisco, CA

Software engineer, Bioinformatics, June-August 2019

- Full stack software development for bioinformatics research application
 - Assisted with design and development of a web app to analyze electroencephalogram (EEG) and electrocardiogram (EKG) data
 - Used Clojure, Clojurescript, Neo4j, Cassandra, Kubernetes, and Travis CI

iD Tech Camps, San Francisco, CA

Instructor, June-August 2018

- Designed and taught lessons to groups of 8-16 year-old students
 - Mentored their creation of a related final project
 - Video production with Adobe Premiere
 - Intro to programming with C, HTML, JavaScript

Campus Policy Research Institute, University of Chicago

Deputy Executive Director, Co-founder, September 2019-present

- Leading 4 teams of over 20 researchers to study policies that affect student life on campus: assist with research, communication, advisory, and project organization

PROJECTS

Elm Synth Sequencer

June 2020

- Interactive music sequencer web app: available on synth.jonahdf.com
 - Customizable scales, beats, bpm, transposition, and synthesizer, with support for file saving/loading
 - Written in Elm and Javascript with the Web Audio API

INTERESTS

Amateur astronomy, choral singing, jazz trumpet, outdoor rock climbing, backpacking, Hillel, Hack@UChicago