Jay L. Karp

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EDUCATION

Columbia University

Masters in Computer Science: Columbia Fu School of Engineering *Expected Spring 2022*

BA in Computer Science: Columbia College Apr 2021

WORK EXPERIENCE

Snap Inc., Human Computer Interaction Researcher *Sep 2021-Present*

- Conducting VR / AR research focusing on candid interaction.
- Research will culminate in a masters thesis to be presented in May 2022.

Apple, Software Engineering Intern *May 2021-Sep 2021*

- Performed user centered design loop to build production quality tooling for 40 person customer feedback engineering team, which collects over 1 million pieces of feedback per year.
- Wrote Ruby on Rails GraphQL API endpoints and built SwiftUI, AppKit and Apollo frontend application.
- Created keynote to explain and detail all work completed during internship to management.

Columbia University, Instructional Assistant for User Interface Design *Sep 2020-Dec 2020*

- Redesigned course material in collaboration with Professor to facilitate a more constructive learning environment.
- Built and demonstrated Flask application to show python web servers and serving dynamic content.
- Mentor 100+ students on intricacies of the user design process and give feedback on individual user centered design projects.

Cheddar Inc., Full Stack and DevOps Intern *Jun 2019-Sep 2019*

- Built full stack web application features for Internet-based news outlet.
- Used Ruby on Rails, Graphql, and React to enhance web apis and serve refined content to frontend application.
- Wrote Golang API to interact with Prometheus pod inside of Kubernetes cluster.

RESEARCH EXPERIENCE

Columbia Computer-Enabled Abilities Lab (CEAL), Research Assistant *Jun 2020-Sep 2020*

- Built front end GUI to allow researchers to interact with participants and adapt to remote user studies due to COVID-19.
- Performed database design and implementation in Parse Stack to transfer information between users and researchers.
- Developed Virtual 3D C# video game allowing researchers to test different blind navigation tools.
- Designed and ran several iterations of user studies with 14 visually impaired participants.
- Wrote NavStick tool description section of research publication, and collaborated on final draft.

Vanderbilt University Medical Center, Transplant Allocation Informatics Researcher *Jun 2018-Sep 2019*

- Compared distance between origins of hospitals receiving organ donations to evaluate consequences of UNOS organ transportation relocation policy.
- Used JavaScript, Java, Python and multiple zip code databases and libraries to maximize organ utilization for transplantation.

Vanderbilt Department of Biomedical Informatics, NLP Intern *Jun 2018-Sep 2018*

- Designed and ran usability study on the efficacy of voice assistant integration for use in electronic health record applications.
- Analyzed Apple's Siri NLP, establishing a baseline for accurate voice recognition in healthcare.
- Presented findings at annual summer intern demonstration, communicating research and medical prospects for applications of NLP technology to physicians and data scientists.

TECHNICAL SKILLS

Languages: Python, Swift, Javascript, Typescript, HTML, CSS, C, Golang, Haskell, OCaml, SQL, Ruby, Bash, LaTeX, C#, Java, C++

Frameworks: React JS, Svelte JS, Node JS, Django, Flask, Ruby on Rails, Tensorflow, NumPy, Unity, GraphQL, SwiftUI, AppKit

Technologies: Vim, TMUX, Zsh, Fsh, Microsoft Office, G Suite, Git/Github, Docker, Kubernetes, AWS, Google Cloud, Firebase, Heroku, Parse Stack, VS Code, Balsamiq, Figma, Zeplin, Mailchimp

EXTRACURRICULARS:

WKCR Radio Programmer, Young Lions Big Band Lead Tenor Saxophone, Soul For Youth Lead Tenor Saxophone, Columbia Ski Team, Multi-Instrumentalist and Music Production, NYC High School Tutor, PlayStation Headphone Consultant.

PEER REVIEWED MANUSCRIPTS

1. Heather W O'Dell, Benjamin J McMichael, Suzie Lee, Jay L Karp, R Lawrence VanHorn, Seth J Karp. Public attitudes toward contemporary issues in liver allocation Am J Transplant. 2019 Apr;19(4):1212-1217. doi: 10.1111/ajt.15227.

2. Wilson CS, Spaeth JM, Karp J, Stocks BT, Hoopes EM, Stein RW, Moore DJ. B lymphocytes protect islet β cells in diabetes prone NOD mice treated with imatinib. JCI Insight. 2019 Apr 9;5(9):e125317. doi: 10.1172/jci.insight.125317. PMID: 30964447; PMCID: PMC6538336.

3. Vishnu Nair, Jay L. Karp, Mohar Kalra, Hollis Lehv, Brian A. Smith, Samuel Silverman, Faizan Jamil. NavStick: Making Video Games Blind-Accessible via the Ability to Look Around. 2021 Oct 10-14. doi: 10.1145/3472749.3474768. (accepted for publication UIST ‘21)