Jay L. Karp

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EDUCATION

Columbia University

Masters in Computer Science: Columbia Fu School of Engineering *May 2022*
GPA: 3.95

BA in Computer Science: Columbia College *Apr 2021*
GPA: 3.8, In Major GPA: 3.97, Dean's List

WORK EXPERIENCE

Twitch (Amazon Web Services), Software Development Engineer *Jun 2022-Present*
- Lead and contributed to development and architecture of high-quality features for Amazon IVS, a video streaming and interactivity platform that handles millions of minutes of streaming data per day.
- Ran weekly operation review sessions to ensure operational excellence of cloud systems.
- Utilized multiple different programming languages and AWS infrastructure components to optimize reliability, performance and scalability of backend systems, contributing to the overall success of Amazon IVS.

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.
- Developed Ruby on Rails GraphQL API endpoints and built SwiftUI, AppKit and Apollo frontend application.
- Summarized and presented all work completed during internship to management in Keynote

Columbia University, Instructional Assistant (User Interface Design, Distributed Systems) *Sep 2020-May 2022*
- Redesigned course material in collaboration with Professors to facilitate a more constructive learning environment.
- Mentored 120+ students on user design process and distributed systems, gave feedback on UI and distributed systems projects.
- Created and presented video lectures, wrote example code for flask applications, Paxos, and distributed databases.

Cheddar Inc., Full Stack and DevOps Intern *Jun 2019-Sep 2019*
- Built full stack web application features for internet-based news outlet with 1 million+ monthly viewers. .
- 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

Snapchat, Human Computer Interaction Researcher *Sep 2021-May 2022*
- Conducting augmented reality research focusing on social computing.
- Designed and ran multiple rounds of interviews for data collection.
- Wrote and presented masters thesis research paper

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.
- Contributed NavStick tool description section of research publication, and collaborated on final draft.

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: Golang, Javascript, Typescript, Python, C, Swift, HTML, CSS, Ruby, Haskell

Frameworks: React JS, Node JS, Flask, Ruby on Rails, GraphQL, SwiftUI, AppKit

Technologies: Vim, TMUX, Zsh, Fsh, Microsoft Office, Windows Internals, G Suite, Git, Github, Docker, AWS, AWS CDK, Firebase, Balsamiq, Figma, Zeplin

EXTRACURRICULARS:

Young Lions Big Band Lead Tenor Saxophone, Soul For Youth Lead Tenor Saxophone, Multi-Instrumentalist and Music Producer, PlayStation Headphone Consultant.

PEER REVIEWED MANUSCRIPTS

1. 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)