UC Berkeley School of Information
102 South Hall #4600
Berkeley, CA 94720
1 November 2018

Dear Faculty Search Committee Members:

I am seeking a tenure-track appointment in a top-tier Computer Science or Information Science department, or other department with a strong interdisciplinary approach. Although my background is as a computer scientist, my research on the governance of software systems is interdisciplinary and has a strong policy focus. As a postdoctoral research scholar in the School of Information at UC Berkeley, I have come to appreciate the richness of an interdisciplinary community and have enjoyed research collaborations with a spectrum of different types of students and scholars. My goal is to join a department where I can either build or grow a reputation of global leadership on issues of how information technology and its use affect the world.

My training is in Computer Science, Physics, and Mathematics, but my interdisciplinary approach views computers as part of broader sociotechnical systems that also include people, institutions, laws, and economic effects. However, understanding the technology that underpins these systems gives me the grounding to study them effectively and to understand when problems are likely to be interesting and when solutions and interventions are likely to work well. Just as policy problems can find solutions in technology, many problems with a technical origin will only be solved through changes in policy, such as problems in online security and privacy or with the fairness and robustness of automated decisions. I finished my PhD in 2015 at Princeton's Center for Information Technology Policy, then took a job working at an internet infrastructure startup, Cloudflare, working on security technologies. In 2017, I returned to research full time, becoming a postdoctoral research scholar at UC Berkeley. My published work covers a range of topics in computer science, with the theme of using governance processes mediated via technology to effect control of sociotechnical systems. This includes work in: cryptography, software security, cybersecurity policy, electronic voting, and cryptocurrencies. My dissertation, *Accountable Algorithms*, spawned a paper of the same title in the University of Pennsylvania Law Review which was recognized in the Future of Privacy Forum's 2016 "Privacy Papers for Policymakers" series of the best technology policy works from that year. I believe an interdisciplinary, research-focused environment provides an ideal place to pursue my research agenda around the relationship between technology and governance.

I am involved in building research communities as well. I spoke at the inaugural Fairness, Accountability, and Transparency in Machine Learning (FATML) workshop in 2014 and have been on the organizing committee ever since, helping coordinate workshops in 2015, 2016, and serving as program committee chair in 2017. I also helped create the related freestanding Conference on Fairness, Accountability, and Transparency, which aims to create a more interdisciplinary research community around responsibility in computer technology. Previously, I served as a founding program committee member for the Workshop on Bitcoin Research and helped to create a research community around cryptocurrencies and their attendant sociotechnical questions.

Although I love academic engagement, I believe it is important to engage beyond the academic world. I have also presented my research to industry conferences, professional societies, and twice to the State of New Jersey's in-house training program for its Deputy Attorneys General. Further, I have filed public comments on issues relevant to my research and written popular magazine pieces unpacking important technology policy issues for a wide audience.

Thank you in advance for your consideration. Please contact me should you need any further information.

Sincerely,

Joshua A. Kroll