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**Title:** Superhuman Computing: Designing Software and Hardware Interfaces to Support Our Natural Abilities

**Abstract:** In recent years, human-computer interfaces have expanded from a relatively standardized set of inputs and outputs (keyboards, mice, and monitors), to a broad ecosystem of device form factors with diverse input, output, and sensing methods. This diversity of human-computer interaction methods can benefit all computer users, but may be especially helpful for individuals with disabilities.

In this talk, I will discuss our recent efforts to create more accessible computing technologies for individuals with a range of abilities, including new mobile and wearable technologies for people with vision impairments, gesture-sensitive wheelchair interfaces, and hands-free user interfaces for wearable computing. I will further discuss how the rise of low-cost fabrication technologies such as 3D printers will enable users with diverse abilities to create their own individualized computing solutions.