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Building the Next Generation of the Web

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It's not hyperbole to say that the World Wide Web changed the world. The first generation of the Web served text-based, static content. The second, and current, iteration of the Web uses cloud computing to bring streaming, interactive media to users. The next generation of the Web will incorporate augmented reality—a digital layer atop the real world. People will interact with this digital layer through smartphones and augmented reality glasses. This new digital overlay will change the world again—literally. Unfortunately, cloud computing alone is not responsive enough to handle the increased data requirements of this new Web while still maintaining a positive user experience. Fog computing is one proposed solution; it brings cloud services physically closer to users, overcoming the cloud's limitations. My research focuses on building and managing a scalable fog network, and creating tools for developers, to make augmented reality the Web's the new reality.