Bio

I am a first-year PhD student in Bioengineering at Stanford. Coming from a formal Computer Science and Human-Computer Interaction background, I am interested in how techniques from human-computer interaction (crowdsourcing, ubiquitous/wearable computing, and data visualization) can be applied to various problems in the health and the life sciences.

Having lived in Austin, Texas for the first 18 years of his life, Peter has a natural interest in both technology and music. When not hacking away at new apps and research projects, Peter can be found performing and creating music.

Before coming to Stanford, Peter completed an undergraduate degree in Computer Science at Rice University in Houston, Texas. Although early in his academic career, Peter hopes to pursue a career in research, whether that ends up being in academia or industry (or both).

EDUCATION AND CERTIFICATIONS

- Master of Science, Stanford University, CS-MS (2018)
- BA, Rice University, Computer Science (2015)

Research & Scholarship

CURRENT RESEARCH AND SCHOLARLY INTERESTS

I am interested in how techniques from human-computer interaction (crowdsourcing, ubiquitous/wearable computing, and data visualization) can be applied to various problems in the health and the life sciences. I ultimately hope to merge the worlds of interactive computing with bioengineering to create algorithms and systems which can be used by scientists and bioengineers.

Publications

PUBLICATIONS

- A Programming Toolkit for Automating Biophysics Experiments with Microorganism Swarms
  Washington, P., Samuel-Gama, K., Riedel-Kruse, I.
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  Washington, P., Voss, C., Haber, N., Tanaka, S., Daniels, J., Feinstein, C., Winograd, T., Wall, D.
• Human Perception of Swarm Robot Motion
  Dietz, G., E, J., Washington, P., Kim, L., Follmer, S.

• ScaleMed: A methodology for iterative mHealth clinical trials 17th International Conference on E-health Networking, Application & Services (HealthCom)
  Washington, P., Kumar, M., Tibrewal, A., Sabharwal, A.

• Feasibility Testing of a Wearable Behavioral Aid for Social Learning in Children with Autism APPLIED CLINICAL INFORMATICS
  2018; 9 (1): 129–40

• SuperpowerGlass: A Wearable Aid for the At-Home Therapy of Children with Autism Proceedings of the ACM on Interactive, Mobile, Wearable and Ubiquitous Technologies
  Washington, P., Voss, C., Kline, A., Haber, N., Daniels, J., Fazel, A., De, T., Feinstein, C., Winograd, T., Wall, D.
  2017

• Bioty: A cloud-based development toolkit for programming experiments and interactive applications with living cells
  Washington, P., Samuel-Gama, K., Goyal, S., Riedel-Kruse, I.
  bioRxiv.
  2017

• Rethinking the Imaging Pipeline for Energy#Efficient Privacy#Preserving Continuous Mobile Vision
  LiKamWa, R., Hou, Y., Washington, P., Zhong, L.
  SID Symposium Digest of Technical Papers.
  2015

• The wireless data drain of users, apps, & platforms ACM SIGMOBILE Mobile Computing and Communications Review
  2013; 17 (4)