

Cameron L Ballard

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Education

New York University Shanghai

BS with Honors, Computer Science, GPA: 3.54

2013-2017

- Teaching assistant, Data Structures course, 2017.
- 2016 Dean's Undergraduate Research Fund recipient.
- Debate team captain for the Collective Voice political activism club, 2013-2015. Taught and organized debates. Assisted in mediation of group discussions.

East China Normal University

Standard Chinese Program 2017-2018

Recent Employment

Visiting Researcher - NYU Shanghai CSE dept. (Summer 2017 – Summer 2018)

Shanghai, China

- Assisted professors Olivier Marin and Romain Corcolle with their research into ferroelectric polycrystals. Responsible for optimization and distribution of a physics simulation.
- Concurrent with Chinese language program at ECNU

Telepresence Research Fellow – NYU Shanghai IMA dept. (Spring 2018 – present)

Shanghai, China

- Primary developer for 3D telecommunication system project led by Michael Naimark. Worked with four others to integrate code and physical for capture and display.
 - Designed, built, and maintained top-of-the-line graphics computer for use with display.
 - Will assist with instruction of Special Projects in Telepresence class Spring 2019.
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Relevant Projects and Skills

Published Research

- Minhui Xue, Cameron Ballard, Kelvin Liu, Carson Nemelka, Yanqiu Wu, Keith Ross, and Haifeng Qian. 2016. You Can Yak but You Can't Hide: Localizing Anonymous Social Network Users. In *Proceedings of the 2016 Internet Measurement Conference (IMC '16)*. ACM, New York, NY, USA, 25-31. <https://dl.acm.org/citation.cfm?id=2987449>
 - Used emulators to automate multiple android devices and spoof location data in order to track users on Yik-Yak.

Current Research

- Deploying a ferroelectric simulation onto a high-performance cluster to improve performance. At NYUSH with Olivier Marin and Romain Corcolle.
 - Ported a polycrystal simulation to Python with Apache Spark for distribution and optimization.
 - Tested the effectiveness of scala as a distributed scientific computing language.
- Telewindow: Developing a headset-free 3D telecommunication system using real-time capture of depth data. At NYU Shanghai with Michael Naimark and four other researchers.
 - Combines depth data from four Intel Realsense cameras along with eyetracking and cutting edge display techniques to replicate conversation.
 - Primary code developer and co-designer of physical system.

Past and Current Personal Projects

- Received a 2016 Dean's Undergraduate Research Fund grant to examine the use of Twitter in the 2016 US election.
 - Collected, annotated, and analyzed tweets from top candidates in the 2016 election.
- Set up and maintained an encrypted proxy server implementing Shadowsocks to allow uncensored Internet access for myself and a small group of colleagues.
- Built and upgraded a personal desktop computer throughout college.

Submissions Awaiting Review

- Zhushou Tang, Sen Chen, Ke Tang, Minhui Xue, Muhammad Ikram, Yuan Tian, Cameron Ballard, Tielei Wang, Haojin Zhu. iOS, Your OS, Everybody's OS: Vetting and Analyzing Network Services of iOS Apps. Submitted to the 28th USENIX Security Symposium.
 - Assisted with review of methods and revision writing for paper submission.

Other Content

- "Liu Cixin's Cosmic Sociology Brings Optimism to Chinese Sci-Fi." *RadiiChina*.
<https://radiichina.com/liu-cixins-cosmic-sociology-brings-optimism-to-chinese-sci-fi/>

Languages

- Native English speaker.
- Proficient in written and spoken Mandarin.

Programming Languages

- Proficient in python, R, java, C, C++, scala, spark, and html/javascript.

Previous Employment

East West Theatre

Shanghai, China

Sound Technician 2013-2015

- Primary sound technician for the production of "A Rocky Horror Picture Show," "A Streetcar Named Desire," and other performances at the Pearl Theater in Shanghai.
- Responsible for design, set-up, and operation of equipment before and during the show.

Southern Utah Wilderness Alliance

Salt Lake City, Utah

Canvasser Leader, Summer, 2014

- Went door-to-door raising money for SUWA's neighborhood outreach program.
- As a leader, trained new employees and assisted with administrative tasks.