

Craig Jakob Einstein

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Education

Boston University - Ph.D., Computer Science *September 2016 - Present*

Advisor: Professor Richard West

Projected Graduation: May, 2021

Boston University - B.A., Geophysics and Planetary Sciences *September 2012 - May 2016*

Minor, Computer Science

Employment History

Graduate Research Intern *August 2019 - Present*

Red Hat

Boston, MA

R&D Office of Technology

- Developing novel virtualization mechanisms for the Linux kernel
- Producing technical documentation and white papers on conducted research
- Assisting with and contributing to research-based outreach

Command and Control Systems Intern

August 2017 - December 2017

NASA

Merritt Island, FL

Kennedy Space Center

- Aided in the development of a space launch system
- Created a tool to simulate and test interactions between system components
- Participated in educational outreach events

Graduate Summer Intern

June 2016 - August 2016

Draper

Cambridge, MA

Peter Chin - Signals, Sensors, and Navigation Group

- Created an algorithm to detect number of clusters in a dataset
- Contributed to machine learning and analytical projects
- Developed techniques to present findings efficiently (data visualizations/presentations)

Research Assistant

June 2015 - May 2016

Boston University

Boston, MA

Jonathan Appavoo (Computer Science Department)

- Aided in the development of a new machine learning software
- Conducted experiments to test the efficiency and usability of the software
- Assisted in the integration of new programming languages to the software

Awards

- **Outstanding Teaching Fellow**, Computer Science *2018-2019 Academic Year*

Publications

- Soham Sinha, Ahmad Golchin, Craig Einstein and Richard West, "A Paravirtualized Android for Next Generation Interactive Automotive Systems", in Proceedings of the 21st International Workshop on Mobile Computing Systems and Applications (HotMobile 2020), Austin, Texas, USA, March 3-4, 2020, DOI 10.1145/3376897.3377861
- C. Einstein, "The isolation of time and space: Using a partitioning hypervisor to host virtual machines". *Red Hat Research Quarterly*, vol. 1:3, pp. 25-30, 2019. https://research.redhat.com/wp-content/uploads/2020/01/RH_Research-Quarterly_2019_Vol3_12192019.pdf
- Zhuoqun Cheng, Richard West and Craig Einstein, "End-to-end Analysis and Design of a Drone Flight Controller", in IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems, Volume 37 Issue 11, pp. 1-12, November 2018, DOI: 10.1109/TCAD.2018.2857399 <https://ieeexplore.ieee.org/document/8412592/>
- Zhuoqun Cheng, Richard West and Craig Einstein, "End-to-end Analysis and Design of a Drone Flight Controller", in Proceedings of the ACM SIGBED International Conference on Embedded Software (EMSOFT), Torino, Italy, September 30-October 5, 2018
- Einstein, Craig Jakob. "Efficient Data Generation and Publication as a Test Tool". NASA, Kennedy Space Center, July 11, 2017; <https://ntrs.nasa.gov/search.jsp?R=20170011665>
- Craig Einstein and Peter Chin " Automatic similarity detection and clustering of data ", Proc. SPIE 10185, Cyber Sensing 2017, 101850K (May 22, 2017); doi: 10.1117/12.2267844; <http://dx.doi.org/10.1117/12.2267844>

Technical Skills

- Computer programming (C, C++, X86 Assembly, Python, SQL, Go, Java, BASH, IDL, Lisp)
- Interacting with Unix-based systems
- Knowledgeable about astronomical observation techniques and processes

Teaching Experience

- **Teaching Fellow**, CS 460/660 (Introduction to Database Systems)
 - Fall 2016, Summer 2017, Fall 2018, Spring 2019
- **Teaching Fellow**, CS 552 (Operating Systems)
 - Spring 2018
- **Teaching Fellow**, CS 210 (Computer Systems)
 - Spring 2017