Shannon A Joyner

sj677@cornell.edu

EDUCATION

Cornell University, Ithaca, NY.
Ph.D. Candidate in Computer Science, August 2017-Current
Thesis Project: Ripple - Serverless Computing Framework
Cumulative GPA: 3.65/4.00

Carnegie Mellon University, Pittsburgh, PA.
Bachelor of Science in Computer Science, May 2014
Cumulative GPA 3.53/4.00

HONORS AND AWARDS

- ACM Symposium on Cloud Computing Diversity Grant 2018
- Cornell First Year Computer Science Graduate Fellowship 2017
- Carnegie Mellon University Honors 2014
- Carnegie Mellon Computer Science Dean's List. Fall 2010, Spring 2011, Spring 2014

RESEARCH EXPERIENCE

University of Washington, Seattle, WA.
Skyline Proteomics Environment, Summer 2011 & Summer 2012

- Worked as part of a C# software development team on the proteomics open source software project Skyline under supervision of Brendan MacLean. http://skyline.maccosslab.org
- Improved the performance of selected spectrum library file access by approximately 50x over the previous release.
- Automated unexpected error reporting to web server.
- Created user interface for web server document repository.

PUBLICATIONS

Peer-Reviewed Publications

- **Joyner SA**, Delimitrou C, Weatherspoon H, MacCoss M. SEQUEST Goes Serverless. (In Preparation)
- **Joyner SA**, Delimitrou C, MacCoss M, Weatherspoon H. Ripple: A Generalized Serverless Framework for Data Transformation. EuroSys 2019. (Submitted)
- Sharma V, Eckels J, Taylor GK, Shulman NJ, Stergachis AB, **Joyner SA**, Yan P, Whiteaker JR, Halusa GN, Schilling B, Gibson BW, Colangelo CM, Paulovich AG, Carr SA, Jaffe JD, MacCoss MJ, MacLean B. Panorama: A Targeted Proteomics Knowledge Base. J Proteome Res. 2014 Sep 5;13(9):4205-10. doi: 10.1021/pr5006636. Epub 2014 Aug 18. PubMed PMID: 25102069; PubMed Central PMCID: PMC4156235.

Peer-Reviewed Orals / Abstracts

- Sharma V, Eckels J, Taylor GK, Shulman NJ, Stergachis AB, **Joyner SA**, Yan P, Whiteaker JR, Halusa GN, Schilling B, Gibson BW, Colangelo CM, Paulovich AG, Carr SA, Jaffe JD, MacCoss MJ, MacLean B. Collaborative targeted proteomics with Panorama and Skyline. The 10th Annual Conference of US HUPO, Seattle WA 2014.

- Eckels J, Sharma V, MacLean B, Taylor GK, Shulman NJ, Stergachis AB, **Joyner SA**, Jaffe JD, MacCoss MJ. Sharing targeted proteomics assays using Skyline and Panorama. The 61th ASMS Conference, Minneapolis, MN 2013.
- MacCoss, MJ, MacLean, B, Egertson, J, Canterbury, J, Chilton, J, Bereman, M, **Joyner, SA**. Shifting paradigms: changing proteomics from hypothesis generating to hypothesis testing. PITTCON Conference and Expo, Orlando FL 2012.

TEACHING EXPERIENCE

Cornell University, Ithaca, NY
6410 (Advance Systems) Teaching Assistant
- Designed class projects.
- Held office hours for students.

Carnegie Mellon University, Pittsburgh, PA
15-440 (Distributed Systems) Teaching Assistant
- Designed class projects.
- Helped create exams.
- Held office hours for students.

Carnegie Mellon University, Pittsburgh, PA
15-110 (Principles of Computing) Teaching Assistant
- Lead weekly recitation.
- Held office hours for students.

WORK EXPERIENCE

Cisco Meraki, San Francisco, CA
Software Engineer, August 2014-June 2017
- Used Akka to multi-thread a gossiping mechanism used for communication between machines.
- Implemented approximation algorithm to improve querying for top clients in a network. Query time went from over 5 minutes to around 15 seconds.
- Sped up service that allowed security appliances to broadcast hostnames using AWS Route 53. This included batching requests to Route 53 and multi-threading the process that checked if hostnames were synced.
- Created service for developers to check out machines for debugging purposes. The service verified that developers left machines in a clean state before allowing them to check in the machine.
- Updated UI and sped up queries for report page that gave summary of network stats like top clients and applications for networks.

Palantir Technologies, Palo Alto, CA
Software Engineer Intern, Summer 2013
- Created a generator for the Metropolis platform Hedgehog language.
- Fixed bugs and helped improve Palantir Configuration Server, which was used to manage Palantir installations.