Emerson A. Azarbakht

CONTACT INFO

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SKILLS

Programming languages: **Python, Java, R, Matlab, C, C++, Bash**
Statistical Analysis: **R**
Databases: **SQL, Hive, Pig, Neo4j, Cypher**
Data visualization tools: **D3.js, ggplot2**
Data Munging tools: **sed, awk, OpenRefine, Trifecta/Data Wrangler, R data.table, R dplyr**
Tools: **Git, Knitr, Shiny, Markdown, Linux, Hadoop, Hive, Pig, IPython, NumPy, Pandas, Matplotlib, Scikit-Learn**

EDUCATION

Ph.D., Computer Science, *Oregon State University* *2017*
Longitudinal analysis & statistical modeling of collaboration graphs of software development
M.S., Computer Science, *Chalmers University*, Sweden *2011*

EXPERIENCE

Senior Data Scientist *Sept 2017 - present*
Yahoo! Search Analytics *Team/Oath Inc.*

- Established and drove instrumentation standards and validation across products
- Worked closely with product teams to understand their requirements and provided guidance on experiment design and measurement
- Coordinated and troubleshot data issues that were raised from numbers reported in reporting systems
- Worked with product teams to understand business problems, formulated analysis plan, analyzed data and delivered actionable insights.
- Extracted data from Hadoop file system using Pig/Hive and used statistical tools and techniques to analyze data to improve user experience and monetization.
- Used deep analytical capabilities to transform data into actionable insights and effectively presented findings to product partners and senior management and helped influence product and business decisions.

Instructor/Graduate Teaching and Research Assistant *Sept 2011-June 2017*
Oregon State University, *School of Electrical Engineering and Computer Science*

- Developed a course (CS 464) for the OSU online CS program (Ranked #7 in the United States)
- Taught the following two courses for the OSU Online CS Program (Ranked #7 in the United States)
  Open Source Software Development (CS 464)
  User Experience Design (CS 352)
- As an instructor, I taught 1,070 post-baccalaureate students and helped them switch careers to get tech jobs.
- I maintained lectures, designed student engagement strategies, and supervised over 26 graduate teaching assistants.
- As a teaching assistant, I helped 500 CS major sophomores learn C programming, by teaching recitations and helping them debug C code. I graded 2300 C programs, wrote shell scripts to automate compilation, execution and grading, and provided individual feedback to students on how to debug and fix C code.
- As a research assistant, I worked on a statistical approach for modeling longitudinal change in software development social networks. Developed a comparative approach to quantify social dynamics, found a well-fitting statistical model of covariates for longitudinal changes in social graphs of software development.

PUBLICATIONS

- Azarbakht, E.A., C. Jensen, "Longitudinal Analysis of the Run-up to a Decision to Break-up (Fork) in a Community," *Proc. 13th Int'l. Conf. Open Source Systems*, 2017.
- Azarbakht, E. A., "Longitudinal Analysis of Collaboration Graphs of Forked Open Source Software Development Projects Using An Actor-oriented Social Network Analysis," *Proc. Int'l. Net. for Social Net. Analysis conf.*, 2016.
- Azarbakht, E. A., "Longitudinal Analysis of Collaboration Graphs of Forked Open Source Software Development Projects," *Proc. 12th Int'l. Conf. Open Source Systems Doct. Cons.*, 2016.
- Azarbakht, A. and C. Jensen, "Drawing the Big Picture: Temporal Visualization of Dynamic Collaboration Graphs of OSS Software Forks," *Proc. 10th Int'l. Conf. Open Source Systems*, 2014.

- Azarbakht, A. and C. Jensen, "Temporal Visualization of Dynamic Collaboration Graphs of OSS Software Forks," *Proc. Int'l. Network for Social Network Analysis Sunbelt conf.*, 2014.
- Davidson, J, R. Naik, A. Mannan, A. Azarbakht, C. Jensen, "Investigating Older Adults' Experiences with Contributing to Free/Open Source Software," *Proc. IEEE Symp. Visual Languages and Human-Centric Computing*, 2014.
- Azarbakht, A., "Temporal Visualization of Collaborative Software Development in FOSS Forks," *Proc. IEEE Symp. Visual Languages and Human-Centric Computing*, 2014.
- Azarbakht, A., "Drawing the Big Picture: Analyzing FLOSS Collaboration with Temporal Social Network Analysis," *Proc. 9th Int'l. Symp. Open Collaboration*, 2013.

GRADUATE COURSES

- Machine Learning
- Time Series Analysis
- Statistical Methods of Data Analysis
- Theory of Statistics I
- Theory of Statistics II
- Stochastic Optimization
- Computer Vision
- Artificial Intelligence
- Algorithms & Data Structures
- Open Source Software Development
- Mobile & Cloud Software Development
- HCI meets Software Development: The Case Study
- Unix Internals: FreeBSD Operating System
- Ubiquitous Computing
- Qualitative & Quantitative Research Methods