

# HOOAN JAVAHERI

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## EXPERIENCE

- 06/2014–now | **RJMETRICS INC., PHILADELPHIA, PA**  
Software/Data Infrastructure Engineer
- ▷ Member of **RJMetrics Pipeline** data team, building scalable and efficient back-end services in Clojure that move trillions bytes of data daily from disparate sources to Amazon Redshift data warehouse
  - ▷ Developed and maintained the highly-available data ingestion service for **RJMetrics Pipeline** including a robust fallback mechanism to prevent losing clients' data during outages to external services
  - ▷ Led a technical project to convert the transformation layer of **RJMetric CloudBI** from ETL to ELT, which reduced the infrastructure costs of the layer by 35%
  - ▷ Built an automated load-balancing and tiering system for the **CloudBI** transformation layer, which consists of several EMR cluster running map-reduce jobs
  - ▷ Wrote a php-auto-test script in Bash to significantly improve the TDD experience for **RJMetrics** central repository, a large PHP codebase
  - ▷ Won company-wide quarterly hackathon (2015-Q3), placed second (2014-Q4) and third (2015-Q4)
- 1/2013–6/2014 | **NORTHEASTERN UNIVERSITY, BOSTON, MA**  
Research Associate and Adjunct Faculty
- ▷ Led a group of graduate students on end-to-end design of application-driven system-on-a-chip wireless systems. Our group built an open-source framework (hardware & software) and made it available for research institutes. More info at: [www.ccs.neu.edu/~hooman](http://www.ccs.neu.edu/~hooman)
  - ▷ Instructed *Discrete Structures* and the introductory computer science for non-majors to class of 50~85 undergraduate students in both lecture and computer lab settings
- 9/2006–12/2012 | Graduate Research Assistant
- ▷ Conducted theoretical and applied research in computer networks, in particular wireless networks. Research areas: wireless networking in challenging and extreme environments, cross-layer networking, RF energy harvesting. Published 10 peer reviewed papers, submitted a provisional patent and presented in several venues
  - ▷ Built systems (hardware and software), and developed mathematical models and simulation testbeds to analyze and optimize their performance
- 5/2008–8/2008 | **AKAMAI TECHNOLOGIES INC., CAMBRIDGE, MA**  
R&D Intern: Network Engineer
- ▷ Wrote scripts (SQL, Python) that analyzed logs in order to audit and measure the accuracy and performance of the load balancing system in Akamai production network
  - ▷ Calculated adjusted capacity for upgraded machines in Akamai production network and eliminated 33% error in the reported load
  - ▷ Developed a statistical analysis tool in MATLAB to evaluate the performance of FLIT, the scale used in the load balancing mechanism, by analyzing the correlation between the reported FLIT and actual load on the servers

## TECHNICAL SKILLS

**Programming:** Functional Programming (Clojure, Scheme), OO (Python, Java, PHP), SQL (PostgreSQL, MySQL), Bash  
**System design:** SOA, Distributed systems, Large-scale data processing, Load balancing, Measurement and monitoring  
**Technology:** Apache Kafka, Amazon Redshift & Kinesis, Hadoop (EMR, Cascading), Graphite, ELK  
**Infrastructure & DevOps:** Linux, AWS, Chef, Vagrant, Terraform  
**Software development:** Agile, TDD, Continuous delivery, Pair programming, REPL driven development, Git  
**Networking:** OSI, TCP/IP, Link layer and routing protocols  
**Numerical analysis & mathematical modeling:** MATLAB, numpy, familiar with R

## EDUCATION

- 2006–2012 | **NORTHEASTERN UNIVERSITY, BOSTON, MA USA**  
Ph.D. in Computer Science
- 2001–2006 | **SHARIF UNIVERSITY OF TECHNOLOGY, TEHRAN, IRAN**  
B.Sc. in Electrical Engineering

## INTERESTS

Graphic design, Linguistics, Typography, Urban photography, Poker, Volleyball