ATSUYA KUMANO

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ABOUT

Math graduate seeking a backend developer position. Primarily interested in data engineering.

EDUCATION

M.A. Mathematics	Pennsylvania State University	Obtained Aug 2016
B.A. Mathematics	Reed College	Obtained May 2014

SKILLS

- Languages: Java and some Scala. Scientific and statistical computing with Python.
- Foundations of machine learning and statistics.
- Basic Linux sysadmin skills.

PROJECTS

Personal projects from the past 12 months:

- Stream processing of NYC taxi data. It consists of two services: idenfitication of high-demend areas and demand prediction. The demand identification service is written in Beam, and is deployed to Cloud Dataflow. The demand prediction service is written in Kafka Streams, and it employs a model produced in Spark.
- arXiv keyword extraction: a Flask app that serves a keyword extraction algorithm performed on arXiv articles. It uses PostgreSQL and Redis for storage, and Vue.js for UI. Deployed to GCP.
- Courses: CS229 Machine Learning (Stanford Engineering Everywhere); Practical Concurrent and Parallel Programming (ITU of Copenhagen); Algorithms Part I & II (Coursera/Princeton); Functional Programming in Scala specialization (Coursera/EPFL); Software Construction (MIT OCW); CMU systems courses lectures.

WORK

Graduate Assistant   Penn State University, Aug 2014 - Aug 2016
- PhD candidate in mathematics. Research in ergodic theory and dynamical systems. Left the program in a good academic standing.
- Instructor for lower-division courses in integral calculus, linear algebra, trigonometry, and discrete mathematics. Conducted lectures, prepared course material, and advised students.

Systems Administrator   Reed College, Feb 2012 - May 2014
- Headed the administration of Ubuntu machines used by math and computer science students.
- Introduced Puppet. Automated management of AFS, NFS, the desktop environment, and various mathematics and computing libraries.

Analyst   Maple Bay Asset Management, Nov 2013 - Dec 2013

Quality Assurance Engineer Intern   Puppet Labs, Jun 2012 - Aug 2012
- Developed a Ruby tool to populate virtual machines in cloud testing infrastructure.

REU: Modeling and Simulation in Systems Biology   Virginia Tech, Summer 2011