

Evgeny Karataev

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EDUCATION

- University of Pittsburgh, Pittsburgh, PA** Fall 2011 – Dec 2016
- PhD., School of Information Sciences. GPA: 3.98.
- Tomsk State University of Control Systems and Radioelectronics, Tomsk, Russia** Sep 2006 – June 2011
- Dipl.-Ing. (Cum Laude), Computing System Department, Computer Aided Design, GPA = 4.94/5.

PROFESSIONAL EXPERIENCE

- Software Engineer, Intern (Part-Time) Siemens (Princeton NJ, USA)** May – July 2016
- Development and evaluation of intelligent algorithms (genetic algorithms for train scheduling task):
- Increased performance 18 times by reducing number of IO operations and refining data structures
 - Created benchmarking and profiler projects to identify bottlenecks and generate comprehensive reports
 - Added ~100 test, identified and fixed over 10 critical bugs
- Instructor (graduate level) University of Pittsburgh** January - April 2015
- Created and taught “Advanced Topics in Database Management” course
- Topics: Data Integration, Distributed/Parallel/NoSQL/NewSQL databases, Cluster Computing (Hadoop/MR, Spark)
- Software Engineer, Intern Siemens (Princeton NJ, USA)** May - December 2014
- Full-stack developer on Software Architecture Modeling project
- Reduced space and time complexity by an order of magnitude by developing multi-threaded stream-based algorithms
- Graduate Research Assistant University of Pittsburgh** 2013 – 2014
- Led full-stack development of NSF funded large-scale research project for data integration, preservation & analysis
- Designed architecture and programmed end-to-end distributed data integration system
 - Developed automated ETL process, schema graph, keyword-to-SQL query converter and distributed query executor
 - Administered development (with continuous integration and testing) and production servers
 - Managed and mentored over 60 master students
- Instructor (graduate level) University of Pittsburgh** May - August 2013
- Taught “Database Management Systems” course
- Topics: Centralized databases, Relational data model, ER model, SQL, Normal Forms
- Software Engineer, Intern Siemens (Princeton NJ, USA)** May – August 2012
- Demand Response Management System
- Implemented calendar view and dynamic report generation system leading to 75% reduction in workload
 - Scaled tree view to millions of nodes leading to invention disclosure and US patent

PROJECTS AT UNIVERSITY OF PITTSBURGH (LEAD DEVELOPER)

- **Fuse Join** (2016). Fuse datasets based on string, spatial and temporal attributes. Developed novel name-hierarchy based spatial join and temporal aggregate join methods (Java, Matlab).
- **MultiDBs** (2015). Query, keyword search and analysis over heterogeneous databases via unified interface (Java, REST API, Jersey, HTML/JavaScript/Knockout.js, Neo4j, PrestoDB, Jupyter Notebook, Jetty).
- **SALT** (2011 – 2012). Educational social network to share knowledge and learn from others with recommendation engine (C#, HTML, JavaScript, ASP.NET MVC, EF, SignalR, MS SQL Server, Apache Mahout, d3.js).

PATENT

G. Matos, E. Karataev. Method and apparatus for browsing large data network topology trees (WO2014036073 A3, at Siemens)

TECHNICAL SKILLS

- Learning: Kotlin; ES6,7; TypeScript; Gradle; Polymer
- Current: Java; JavaScript; Python; SQL; Matlab; RESTful Web Services; Spring MVC/Boot; Hibernate; MySQL; MS SQL Server; PostgreSQL; Neo4j; MongoDB; Pentaho DI; Maven; Git; Jenkins; Docker; Vagrant
- Previous: C#; PHP; C; C++; ASP.NET MVC; Django; ExtJs; OpenGL