

Konstantinos Xirogiannopoulos

3226 A.V. Williams Bldg
College Park, MD 20740
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INTERESTS I am interested in database systems, data management, large-scale analytics and distributed systems.

EDUCATION *Ph.D. in Computer Science,* **August 2014 – present**
University of Maryland, College Park, *MD, USA*

B.Sc. in Computer Science, **September 2009 – January 2014**
Athens University of Economics and Business, *Athens Greece*
Ranked in the top 7.5% of graduates in past five years

TECHNICAL SKILLS *Programming Languages:* Java, Go, Python, JavaScript, C.
Operating Systems: Mac OS X, Windows, Ubuntu.
Back-end Technologies: PostgreSQL, MySQL, MongoDB, ElasticSearch.
Web Front-end Technologies: Bootstrap, JQuery, D3.
Data Analysis Technologies: Hadoop, Hama, Giraph, Spark.
Software: Git, Scikit-Learn, Heroku, Jenkins.

RESEARCH EXPERIENCE *Graduate Research Assistant* **June 2015 – present**
University of Maryland, College Park [Databases Lab](#)

Advisor: Prof. Amol Deshpande
Graph Extraction from Relational Datasets
Efficiently and intuitively extracting graphs from relational data using a custom Domain Specific Language based on Datalog. Allows users to conduct in-memory large-scale graph analytics on their relational datasets without the need for complex ETL or migrating to a native graph database. [[Project Webpage](#)]

Undergraduate Researcher **Oct. 2012 – Sept. 2013**
Athens University of Economics and Business
Thesis Title: “[Graph Databases and Big Data : Study, Overview of Existing Systems, and Sub-Graph Pattern Matching Implementation using Apache Hama](#)”
Supervisor: Prof. Yannis Kotidis

PUBLICATIONS

- Konstantinos Xirogiannopoulos, Udayan Khurana, Amol Deshpande
[GraphGen: Exploring Interesting Graphs in Relational Data](#) [[video](#)]
VLDB 2015, Demonstrations Track
- Konstantinos Xirogiannopoulos, Amol Deshpande
Efficient Graph Analytics over Relational Datasets
SIGMOD 2016, Research Paper Track [[Pending Submission](#)]

HONORS & AWARDS Dean’s Fellowship
University of Maryland, College Park

Honorary Scholarship and Award for Academic and Moral Distinction in first year at AUEB (2009-2010) *State Scholarships Foundation IKY (Ranked #1 / 240)*

PROFESSIONAL EXPERIENCE	Back-End Software Engineer Intern <i>Asuum GmbH based in Berlin, Germany</i> Developed for asynchronous inter-server communication, data management, data analysis and web application back-end maintenance. Used <i>minhashing</i> techniques to deal with duplicate news articles from publishers on the <i>Asuum Bounce</i> project. <i>Skills: Java, Hadoop (MapReduce), MongoDB, ElasticSearch, Jenkins</i>	March 2014 – June 2014
TEACHING & MENTORING	Graduate Teaching Assistant <i>Course: CMSC132: Object Oriented Programming II</i> <i>Instructor: Mr. Larry Herman</i> Object Oriented Programming concepts, best practices, unit testing, basic data structures, graph algorithms, multi-threading and concurrency concepts (all taught in Java). Conducted four 1-hour long discussion sections/week (approx. 35 students/section) and held 4-hours of office-hours every week for answering questions. Graded quizzes, midterms and final exams, in collaboration with other Teaching Assistants.	Sept. 2014 – Dec. 2014
SELECTED COURSES & PROJECTS	Distributed & Cloud Based File Systems <i>Instructor: Prof. Peter Keleher</i> <ul style="list-style-type: none"><i>Built Distributed, Fault Tolerant, Durable File System from Scratch:</i> Starting from a simple in-memory file system implementation, made it persistent to disk, and implemented distributed file systems concepts like file versioning, replication and distributed consensus (Raft) towards a fully functional, distributed file system with the above guarantees. All development done in Go (A). Computational Linguistics I <i>Instructor: Prof. Hal Daume III</i> <ul style="list-style-type: none">Konstantinos Xirogiannopoulos, Kasia Hitczenko <i>Built a multi-class classifier:</i> Classifying quizbowl question text to their correct answers in an automatic way using various training sets. <i>Skills: Python, Scikit-Learn, Nltk</i> (A+). Database Management Systems <i>Instructor: Prof. Amol Deshpande</i> <ul style="list-style-type: none">Konstantinos Xirogiannopoulos, Benjamin Bengfort <i>Graph-Based Machine Learning on Relational Data</i> (A+). Information Visualization <i>Instructor: Prof. Ben Schneiderman</i> <ul style="list-style-type: none">Konstantinos Xirogiannopoulos, Myco Paulo, Zheng Xu, Deok Gun Park <i>TimeGrouper: Visualizing Time Series Clustering Towards Studying the Global Decay Rate of Vulnerabilities</i> [video demo] <i>Implemented and deployed RESTful service</i> (Python/Flask) that applied clustering techniques to time series data on the fly, formatted and returned results to front-end application. <i>Skills: Python, Scikit-Learn, Flask, Heroku</i> (A)	Sept. 2014 – Dec. 2014 Sept. 2014 – Dec. 2014 Feb. 2015 – May. 2015 Feb. 2015 – May. 2015
HOBBIES & INTERESTS	Music: Electric & Acoustic Guitar, Sports: Basketball, Swimming, Skiing, Leisure: Fishing, Cinema, Rubiks Speedcubing	