Konstantinos Xirogiannopoulos

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INTERESTS

I am interested in database systems, big data management, large-scale data analytics and distributed systems

EDUCATION

PhD. in Computer Science, **August 2014 - currently**
University of Maryland, College Park
Advisor: Prof. Amol Deshpande

BSc. in Computer Science, **Sept. 2009 - Jan. 2014**
Athens University of Economics and Business
Ranked in the top 7.5% in past five years of graduates

HONORS & AWARDS

- Dean's Fellowship
  University of Maryland, College Park
- Honorary Scholarship and Award for Academic and Moral distinction on first year (2009-10) *State Scholarships Foundation*
  (Ranked #1 / 240)

RESEARCH EXPERIENCE

Graduate Research Assistant **June 2015 - currently**
University of Maryland, College Park Databases Lab
Advisor: Prof. Amol Deshpande
Full-time Graduate Research Assistantship working on the followup research paper for the *GraphGen* Project.

Large-Scale Graph Extraction from Relational Datasets

- GraphGen: Efficiently and intuitively extracting graphs from relational data using a custom Domain Specific Language based on Datalog. This allows users to conduct in-memory large-scale graph analytics on their relational datasets without the need for migrating to a native graph database

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 Matching Queries Algorithm Implementation using Apache Hama Graph-Parallel Processing Framework"
Supervisor: Prof. Yannis Kotidis

PUBLICATIONS ***Reseach Papers***

- Konstantinos Xirogiannopoulos, Amol Deshpande
  Extracting and Analyzing Hidden Graphs from Relational Databases
  SIGMOD 2017

Demonstrations

- Konstantinos Xirogiannopoulos, Udayan Khurana, Amol Deshpande
  GraphGen: Exploring Interesting Graphs in Relational Data
  VLDB 2015

PROFESSIONAL EXPERIENCE

Summer Research Intern **May 2016 - August 2016**
IBM Almaden Research Center, California USA
Worked with a team of experienced research scientists on problems revolving around domain ontologies, knowledge graph data management, and retrieval.
Technical Skills: Java, Spark MLlib

TEACHING & MENTORING

Graduate Teaching Assistant (Teaching) **Sept. 2014 - Dec. 2014**
Course: CMSC132: Object Oriented Programming II
Instructor: Larry Herman
Conducted four 1-hour long discussion sections per week (approx. 35 students per section) and held 4-hours of office-hours every week for answering questions. These discussion sections included explaining concepts, doing worksheets, assigning and grading quizzes. Graded quizzes and actively participated in grading of midterms and final exams.

RECENT COURSES

CMSC818:Distributed and Cloud Based File Systems **Sept. 2014 - Dec. 2014**
Instructor: Prof. Peter Keleher

Built Distributed Fault Tolerant, Durable File System from Scratch: Starting from a simple in-memory file system implementation, made it persistent, and later applied and implemented distributed file systems concepts like versioning, replication and distributed consensus (Raft) and developed a fully functional, distributed file system with many guarantees. All development done in *Go* ("A").

CMSC723:Computational Linguistics I **Sept. 2014 - Dec. 2014**
Instructor: Prof. Hal Daume III

- Konstantinos Xirogiannopoulos, Kasia Hitczenko
  Automatic Quiz-bowl Question Answering: Built a classifier that classified text quiz-bowl questions to their correct answers in an automatic way. Text processing done in *Python* ("A+").

CMSC 724: Database Management Systems **Feb. 2015 - May. 2015**
Instructor: Prof. Amol Deshpande

- Konstantinos Xirogiannopoulos, Benjamin Bengfort
  Graph-Based Machine Learning on Relational Data ("A+").

CMSC 734: Information Visualization **Feb. 2015 - May. 2015**
Instructor: Prof. Ben Schneiderman

- Konstantinos Xirogiannopoulos, Myco Paulo, Zheng Xu, Deok Gun Park
  TimeGrouper: Visualizing Time Series Clustering Towards the Identification of the Contributing Factors to the Global Decay Rate of Vulnerabilities ("A")
  [video demo]

HOBBIES & INTERESTS *Music* (Electric & Acoustic Guitar), *Sports* (Basketball [participation in town tournaments] , Swimming, Skiing), *Leisure* (Fishing, Cinema, Android OS Enthusiast, Rubiks Speedcubing [national contest participation])