## Meri Kavtelishvili

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#### **EDUCATION**

University of Pennsylvania, School of Engineering & Applied Science - Philadelphia, PA

May 2021

Bachelor of Science in Engineering in Computer and Information Science | Minor: Mathematics | GPA: 3.73 / 4.00

### **RELEVANT COURSEWORK**

**Computer Science:** Data Structures & Algorithms; Database and Information Systems (graduate level); Scalable and Cloud Computing; Software Design & Engineering; Algorithmic Game Theory; Introduction to Computer Systems;

Programming Languages and Techniques; Automata, Computability, & Complexity; Market & Social Systems on the Internet

Mathematics: Discrete Mathematics; Statistics - Probability; Linear Algebra; Differential Equations; Calculus III

#### **TECHNICAL SKILLS**

- Proficient: Java, C, OCaml Intermediate: Python, JavaScript, Cypher Familiar: Scala
- SQL, MongoDB, Neo4j, AWS, Hadoop MapReduce, Android Studio, Node.js, Git, LaTeX, HTML, CSS, Bootstrap

### **PROJECTS**

**CollegeBnB** Database and Information Systems class project — Web Application

Jan. 2020 - May 2020

- Collaborated in a team of four to make a web application that helps prospective college students pick colleges based on preferred criteria, and plan their college tour trips
- Designed the database and wrote and optimized SQL queries on a database with more than 40k entries

**PennPals** Software Engineering and Design class project — Android & Web Application

Sept. 2019 - Dec. 2019

- Collaborated in a team of four to design an application that connects future UPenn applicants from underrepresented communities with current UPenn students
- Implemented friend-connections and other related features, and a connections recommendation system end to end
- Utilized Android Studio, JavaScript, HTML/CSS, Java, Node Express, MongoDB

PennBook | Distributed Systems and Cloud Computing class project – Web Application

Sept. 2019 - Dec. 2019

- Collaborated in a team of three to design a web app that supports some of the same features as Facebook, such as posting on a timeline, adding friends, messaging, and getting friend recommendations
- Implemented the Adsorption Algorithm in Hadoop MapReduce to make a friend recommendation system for the app

# **EXPERIENCE**

Distributed Systems Engineering intern, ActionIQ, New York, NY

(Cancelled due to COVID-19) summer 2020

## Teaching Assistant, UPenn School of Engineering, Philadelphia, PA

Jan. 2019 - Present

- Courses TA-ed: CIS 502 <u>Analysis of Algorithms</u> (Graduate level), CIS 320 <u>Data Structures and Algorithms</u>,
  MCIT 594 <u>Data Structures and Software Design</u>, CIS 160 <u>Discrete Mathematics</u>, <u>Mathematical Foundations of Computer Science</u>
- Hold weekly office hours for 15+ students to help them with HW and answer questions about the course material
- Grade exams and homework of 190+ students weekly together with other TAs
- Teach weekly recitations of 15-20 students, and co-design recitation curriculum

### Google CSR Explore Researcher, UPenn School of Engineering, Philadelphia, PA

Jan. 2019 - July 2019

 Researched causal inference and probabilistic causal models to examine Markov Logic Networks (undirected probabilistic graphical models) and their role in prediction making; Advised by Professor Val Tannen

### Tutor for CIS 121, The Tutoring Center, University of Pennsylvania, Philadelphia, PA

Oct. 2019 - Dec. 2019

Tutored three fellow students weekly in essential data structures and algorithms such as graph algorithms, greedy algorithms,
 Huffman Encoding, divide and conquer paradigm, hashing, searching and sorting, trees, balanced BST trees, heaps, tries, and lists

## **ACTIVITIES**

## PACT – Program in Algorithmic and Combinatorial Thinking, Princeton University, Princeton, NJ

June 2019 - July 2019

- Participated in a grad-level theory course about randomized and approximation algorithms and linear programming led by guest professors from Harvard, Cornell, Columbia, Princeton and other universities with 20 other students
- Led two lectures on topics in graph theory and probability in a 100+ student class
- Mentored a group of six students participating in the Discrete Mathematics course