Meri Kavtelishvili

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EDUCATION

University of Pennsylvania, **School of Engineering & Applied Science** - Philadelphia, PA **Expected May 2021**
B.S.E in Computer and Information Science | **Minor**: Mathematics | **GPA**: 3.74 / 4.00

RELEVANT COURSEWORK

Computer Science: Data Structures & Algorithms; Database and Information Systems (graduate level); Algorithmic Game Theory; Scalable and Cloud Computing; Software Design & Engineering; 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, Express, HTML, CSS, Bootstrap, React

PROJECTS & RESEARCH EXPERIENCE

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

PennBook | Distributed Systems and Cloud Computing class project – Web Application **Sept. 2019 – Dec. 2019**

- Collaborated in a team of three to design mini-Facebook - a web app that supports posting, messaging, and adding friends
- Implemented the Adsorption Algorithm in Hadoop MapReduce to make a friend recommendation system for the app

PennPals | Software Engineering and Design class project – Android & Web Application **Sept. 2019 – Dec. 2019**

- Designed an application in a team of four that connects 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, Java, Node.js, Express, and MongoDB on Atlas

Causal inference and Probabilistic Causal Models | *Google CSR Explore Researcher* **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

PROFESSIONAL EXPERIENCE

Distributed Systems Engineering Intern, **ActionIQ, New York, NY** (Cancelled due to COVID-19) **Summer 2020**

Intern, **InternHacks URx, Remote** **Jun. 2020 – Present**

- Built a web-application that sends users customizable reminders to connect with friends and family, and lets the users track the interaction history with their connections
- Collaborated in a cross-functional five-member team of designers, product managers, and frontend engineers
- Designed tech stack, architecture, and the database, set up a software pipeline, used Google sign-in API, implemented the RESTful API for the backend, designed and implemented the algorithm for sending reminders by utilizing Node.js, Express, React, and MongoDB

Teaching Assistant, ***UPenn School of Engineering, Philadelphia, PA*** **Jan. 2019 – Present**

- Courses TA-ed: *CIS 502 – Analysis of Algorithms (Graduate level), CIS 320 – Data Structures and Algorithms, MCIT 594 – Data Structures and Software Design, CIS 160 – Discrete Mathematics, Mathematical Foundations of Computer Science*
- Held weekly office hours for 15+ students to help them with HW and answer questions about the course material
- Designed the rubrics and graded exams and homework of 190+ students weekly together with other TAs
- Taught weekly recitations of 15-20 students, and co-designed recitation curriculum

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