Meri Kavtelishvili

merikav@seas.upenn.edu | linkedin.com/in/merikav | github.com/merikav

EDUCATION

University of Pennsylvania, School of Engineering and Applied Science – Philadelphia, PA 　　　　Expected May 2022
B.S.E, M.S.E in *Computer and Information Science* | Minor: Mathematics | GPA: 3.74/4.0

COURSEWORK

Computer Science: Data Structures & Algorithms; Database and Information Systems (graduate level); Scalable and Cloud Computing; Software Design & Engineering*;* Introduction to Computer Systems; Algorithmic Game Theory; Randomized Algorithms (summer program); Automata, Computability, & Complexity; Market & Social Systems on the Internet
Mathematics: Discrete Mathematics; Statistics - Probability; Linear Algebra; Differential Equations; Calculus III; Game Theory

TECHNICAL SKILLS

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

PROFESSIONAL EXPERIENCE

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

Software Engineering Intern | InternHacks, URx – Virtual 　　　　Jun – Aug 2020
- Collaborated in a cross-functional, five-member team to build 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
- Personally designed tech stack, architecture, and the database, used Google authentication API, implemented the RESTful API for the backend by utilizing Node.js, Express, and MongoDB
- Designed and implemented the algorithm for sending reminders based on the users' activity
- Won the award for the best architectural design

Teaching Assistant | University of Pennsylvania – Philadelphia, PA 　　　　Jan 2019 – Aug 2020
- Courses TA-ed: *CIS 502 – Analysis of Algorithms (Graduate level), CIS 320 – Data Structures & Algorithms, MCIT 594 – Data Structures & Software Design, CIS 160 – Discrete Mathematics, Graph Theory*
- 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

PROJECTS & RESEARCH EXPERIENCE

CollegeBnB | Database and Information Systems class project – Web Application 　　　　Jan - 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, wrote and optimized SQL queries on a database with more than 100k entries, improved query performance by 250%

PennBook | Scalable and Cloud Computing class project – Web Application 　　　　Sept - Dec 2019
- Collaborated in a team of three to build mini-Facebook - a web app that supports posting, messaging, and connections
- 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 – Dec 2019
- Built an application in a team of four that connects UPenn applicants from underrepresented communities with current UPenn students
- Implemented friend-connections, friend recommendation system and other related features end to end
- Utilized Java, Android Studio, Node.js, Express, and MongoDB on Atlas

J-Compiler | Computer Systems class project – Compiler in C 　　　　Nov – Dec 2019
- Wrote a compiler in C that converts code written in a new stack-oriented language, J, into LC4 (Penn's version of LC3) assembly code similar to the way lcc compiler converter converts C code into assembly

Causal Inference and Probabilistic Causal Models | Google CSR Explore Researcher 　　　　Jan – 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