Jonathan J. Kampf

4021 Locust Street, Philadelphia, PA 19104 • 901.568.0666 • kampfj@sas.upenn.edu • LinkedIn: JJ Kampf • Github: kampfj

Education

University of Pennsylvania, School of Engineering and Applied Science — *Expected May 2022*

Candidate for Bachelor of Science in Engineering

Majors: Computer Science, Philosophy

Activities: Officer, Student Government • Member & Tour Manager, Penn Shabbatones A Cappella • Tour Guide, Kite and Key Society • Scholar-In-Residence Committee Head, Orthodox Community @ Penn

Experience

Microsoft, Software Engineering and Program Management Intern — *May - August 2020*

• Designed and implemented (C#, SQL) framework for dynamically validating streams of over 2TB of map data based on configured metrics, now used by several teams in the Bing Maps organization.
• Increased flexibility for introducing new metrics and eliminated redundant scripts across teams.

Data Structures and Algorithms (CIS 121), Teaching Assistant — *January 2020 - Present*

• Taught weekly recitation, held office hours, and conducted review sessions to help students build intuition for algorithmic paradigms and execute implementation independently.
• Designed homework problems with a focus on applying algorithmic and optimization techniques to real-world situations.

Math Foundations of Computer Science (CIS 160), Teaching Assistant — *May - December 2019*

• Taught recitation and held office hours, guiding students in proof techniques and problem-solving skills related to algorithm development.
• Worked closely with professor to anonymize exams and enhance student privacy in the process of TA exam grading.

Projects

Room Matching Machine, Achva West Summer Tour — *July 2019*

• Noticed ineffiency in manually constructing hotel roommates given input of camper requests and disrequests as counselor for travel program.
• Implemented tool to group 3+ participants using preference-based matching algorithm and object-oriented programming.
• Allowed staff to focus on key event and travel logistics while helping campers cultivate meaningful friendships on overnights.

Corona Model — *May 2020*

• Designed iOS application scraping real-time COVID transmission data to simulate life on college campus during the pandemic.
• Developed support for parameters like “social distance compliance” to track effects of relevant variables on R_0, a fundamental statistic in the study of infectious diseases.

Leadership

University of Pennsylvania Class Board, VP of Internal Affairs — *April 2019 - Present*

• Developed grade-wide programming and drove marketing that boosted student engagement by 15% over the course of a year.
• Partnered with Penn administration and campus recreation to initiate student-centered mindfulness and well-being events, such as class-wide outdoor yoga.

Coursework

Computer Science through Program Design • Algorithms • Computer Architecture • Principles of Physics: Mechanics of Wave Motion • Principles of Physics: Electricity and Magnetism • Multivariable Calculus • Automata, Computation, and Complexity • Formal Logic

Skills

Java • Git • C Programming Language • C# • Swift • SQL • Python • OCaml • HTML • CSS • Ruby On Rails • ASP.NET Framework • Program Design

Hobbies

Ukulele • Piano • Reading • Meditation • Documentaries • Basketball