Jonathan J. Kampf

4021 Locust Street, Philadelphia PA 19104 • (901) 568-0666 • kampfj@sas.upenn.edu

Education

University of Pennsylvania, School of Engineering and Applied Science *Expected May 2022*
Candidate for Bachelor of Applied Science
Majors: Computer Science, Philosophy

Margolin Hebrew Academy Feinstone Yeshiva of the South *June 2017*
5.0/5.0
Honors/Activties
National Coca-Cola Scholar • Rhodes College Book Award •
Feinstone Scholar • President, National Council of Synagogue Youth •
Captain, Varsity Basketball

Experience

Mathematical Foundations of Computer Science, Teaching Assistant *May 2019 – Present*
• Discrete math course focusing on proof techniques and problem-solving skills related to
algorithm development taught at the University of Pennsylvania (CIS 160).
• Responsibilities include writing homework and solutions, leading recitation section, grad-
ing, and holding office hours.

Counselor, Achva West Summer Tour *July – August 2019*
Led teen tour of 160 students across West Coast, serving as mentor and creating engaging
and growth-oriented programming for rising high school sophomores.

Projects

Room Matching Machine *July 2019*
• As counselor for Achva West summer tour, noticed ineffiency in manually constructing
hotel roommates given complex input of participant requests and disrequests.
• Designed, implemented, and deployed Java tool adapting Gale and Shapley's stable
matching algorithm to successfully group 3+ participants into rooms randomly and based
on participant preferences, allowing staff to focus attention on program and event logistics
while helping participants cultivate friendships in twelve hotels across eight states (https://
github.com/kampfj/Room-Matching-Machine).

Maps *April 2019*
Implemented Java's *Map* interface using both hashing by chaining and a trie data structure
with the goal of testing the relative time and space complexities of the implementations and
because implementing a HashMap is cool.

Pennstagram *October 2018*
Designed university-themed photo editor using Java 2-D arrays to model pixel
collections with blur, color inversion, and other dynamic photo editing capability.

Leadership

Class Board, Vice President of Internal Affairs *April 2019 – Present*
Responsible for overseeing class-wide event planning and programming for our 2.500 stu-
dent constituency. Coordinated with Penn administration to facilitate mindfulness events
and student platforms for wellness throughout school year.

Coursework

Computer Science through Program Design • Mathematical Foundations of Computer *Ongoing*
Science • Data Structures and Algorithms • Principles of Physics: Mechanics and Wave
Motion • Multivariable Calculus • Computer Architecture

Skills

Java • OCaml • Python • HTML • CSS • Git • Adobe Creative Suite

Hobbies

Playing Ukulele • Reading • Coding • Meditation