

# Alexander Kassouni

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## EDUCATION

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University of Pennsylvania, B.S.E. in Computer Science and Mathematics (Double Major) May 2022  
GPA: 3.75, Dean's List

## COURSEWORK

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Computer Science: Algorithms, Operating Systems, Compilers, Computer Architecture  
Math: Advanced Linear Algebra, Abstract Algebra, Stochastic Processes, Game Theory, Probability Theory

## SKILLS

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Advanced: Java, C/C++, JavaScript, Python  
Proficient: Common Lisp, Android, React, JQuery, Django, PostgreSQL, HTML/CSS

## WORK EXPERIENCE

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Smirta Innovations, Software Development May – Present 2020

CareBot:

- Developer of CareBot Web, a React app for directing patients to appropriate local care facilities based on their symptoms
- Integrated an interactive chat bot for diagnosis of user's symptoms
- Project live demoed to potential customers

deepPath:

- Worked on deepPath, a Django web app for pathologists to manage and annotate biopsy images
- Primary responder to customer bug reports and implemented 4 major feature requests

CIS 262 (Automata, Computability, and Complexity), Teaching Assistant Fall 2020

- Create rubrics for standardized grading of homework and exams
- Hold weekly 1:1 office hours, helping students with the material

Fang-Yen Lab, Software Development February – August 2019

- Worked on WormPicker, a patented robotic arm capable of arranging microscopic nematodes (*C. elegans*) on petri dishes
- Developed computer vision algorithms for segmentation and tracking of *C. elegans* using C++ and the OpenCV library
- Automates a previous bottleneck on throughput of *c. Elegans* genome research

Hawaii Space Flight Lab, Summer Intern June – July 2017

- Developed a Qt user interface for the mission design tool component of the NASA EPSCoR COSMOS project, an open source project for the planning and executing of launches

## LEADERSHIP AND VOLUNTEER EXPERIENCE

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Middle School Debate Coaching May 2016 – May 2018

- Coached and mentored parliamentary middle school debate team
- Managed and organized 40+ parent volunteers to satisfy each tournament's judging requirement