Sotiris Karagounis

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TEACHING & LEADERSHIP

Teaching Assistant, Brown University

2017 - Present

TA for CSCI 0160: Introduction To Algorithms and Data Structures (Approx. 250 students)

TA for CSCI 0150: Introduction To Object-Oriented Programming (Approx. 400 students)

Responsibilities include:

- Grading students' projects and assignments
- Helping students in TA hours
- Holding weekly labs and section
- Revising previous lectures and class materials

Leadership Role, Students for the Exploration and Development of Space (SEDS) Brown Chapter

2017 - Present

Student organization for space enthusiasts. (Approx. 60 members)

Responsibilities include:

- Promoting the chapter around campus
- Organizing events and club excursions pertaining to space
- Maintenance of the student website

EXTRA-CIRRICULAR PROJECTS

Yale Hackathon (YHack): Created with a team a Google Chrome called **FakeOut** that detects whether the article that is about to be posted on Facebook is fake news. *Acknowledeged* for a prize in the Fake News category of the competition. **Used libraries:** scikit-learn, Flask, Beautiful Soup

CS 0160 Machine Learning Project: Building a new project with a team for the course to better introduce machine learning to CS students unfamiliar with the topic. Students are expected to write the ID3 algorithm to create a decision tree based on support code provided. **Used libraries:** JavaFX

COMPUTER SCIENCE ESSAYS

IB Extended Essay: Under what condition is it possible to completely match two sets using simple bipartite graphs? Essay on graph theory, (Grade A)
IB Mathematics Internal Assessment: Can the correctness of RSA Encryption be proven?

INTERESTS

I am interested in astronomy / astrophysics and data science application to these fields. Other interests include: cooking, on-campus LGBT events, science fiction novels.

EDUCATION

Brown University, Providence, Rhode Island

2016 - Present

Bachelor of Science Candidate, Major in Computer Science
Expected Graduation Year: 2020, GPA: 3.4

RELEVANT COURSES

CSCI 0150: Introduction to Object-Oriented Programming and Computer Science
CSCI 0160: Introduction to Algorithms and Data Structures
CSCI 0220: Introduction to Discrete Structures and Probability

CSCI 0330: Introduction to Computer Systems
MATH 0180: Intermediate Calculus

CURRENT COURSES

MATH 0520: Linear Algebra
APMA 1650: Statistical Inference I
CSCI 1950Y: Logic for Systems
CSCI 0160: TA Apprenticeship

SELECT COURSEWORK PROJECTS

Shell: Created a fully-functional shell in C with job-handling, built in command and program execution.

Malloc: Implemented malloc, realloc and free in C. The dynamic memory allocator uses splitting, coalescing and a free list to keep the heap consistent.

Pacman: Fully functional Pacman that uses BFS as simple game AI for the ghosts.

Seamcarve: Using a dynamic programming algorithm, created software that removes non-important pixels with

SKILLS

I am **profecient programming in:** Java and Python. Additionally I am **familiar with:** C. I have experience with the following libraries: scikit-learn, Flask and am comfortable with the UNIX/LINUX environment.

LANGUAGES

Greek (Fluent)
Ancient Greek (Translation)
Spanish (Beginner)