
Alex Karacaoglu

Software Developer · Student

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Objective: Dedicated student and aspiring software developer looking to gain real-world experience

Education

Boston College

Expected Graduation: May 2019

- Bachelor's Degree in Mathematics and Computer Science
- Academic Honors: Dean's List (4 Semesters)
- Mathematics Major GPA: 3.55/4.0 Computer Science Major GPA: 3.80/4.0
- Relevant Coursework: Computer Organization, Computer Security, Computer Systems, Cryptography, Data Structures and Algorithms, Differential Equations, Differential Geometry, Dynamical Systems, Euclidean/Non-Euclidean Geometry, Logic, Multivariable Calculus, Probability, Real Analysis, Randomness, Statistics

Professional Experience

Liberty Mutual Insurance | Boston, MA

Incoming Software Development Intern

May 2018 -

Computer Science Department of Boston College

Teaching Assistant

August 2017 – Present

- Intro to Computer Science II (Data Structures, Algorithms, Java) – Fall Semester 2017
- Randomness and Computation (Python, NumPy) – Spring Semester 2018

InterSystems Corporation | Cambridge, MA

Product Support Intern

May 2017 - Present

- Provided functionality and security enhancements to the Hazard Log, a clinical risk application used with the TrakCare Electronic Medical Record System. Also, designed and implemented an algorithm to enhance management's understanding of how well the company is doing in upholding its service level agreements (SLAs) with customers.
- Current part-time work involves developing a mobile-friendly application to be used by the Technical Services team to help effectively provide services for internal hardware and software issues as well as providing a smooth transition in the form of integration, initial updates and requested enhancements of a new service application for the TrakCare product

Technical Skills

Programming Languages: C, InterSystems ObjectScript, Java, OCaml, Python

Web Development: AngularJS, Bootstrap, HTML, CSS, JavaScript, JQuery

Database: InterSystems Caché, SQL

Other: Git, JSON, LaTeX, Perforce, REST API, Stata

Projects

Automated Cryptanalysis of a Monoalphabetic Cipher

- Final project for my Cryptography course. Implemented a probabilistic algorithm that analyzes the distribution of letter frequency to exploit the insecurities of this encryption method and return a decrypted text upon completion

Leadership

TEDx Boston College

October 2017 – Present

Board Member – Curator/Speaker Outreach and Development

- Responsible for contacting, interviewing, selecting and preparing speakers for a TEDx event at Boston College in the Spring of 2018

4Boston Volunteers of Boston College

September 2015- Present

Council Member

- Serve as an activities coordinator at the Mattapan Early Elementary School. Joined the leadership council in May of 2017 where responsibilities include leading a group of 12-15 students in weekly reflections, as well as providing input in the club's decision-making process