# Charles Dracos

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#### Education

#### **Duke University**

Class of 2020 Computer Science B.S. Minors in Economics and Philosophy GPA 3.54 ( 3.76 in Major )

#### Horace Mann School

Class of 2016 GPA 3.67

## Honors/Awards

## **Duke University**

Dean's List Fall 2017

#### Horace Mann School

Varsity Captain ( Soccer, Swimming, Track )

#### Skills

#### **Programming Languages**

Java, C#, C, Assembly (MIPS), Python, Javascript, Swift, HTML, CSS

#### Technical

Git / Version Control, Virtual Machines, Command Line, Microsoft Azure, Jenkins

### Spoken Languages

English, French

#### **Relevant Coursework**

- Software Design & Implementation
- Data Structures & Algorithms
- Computer Architecture
- Discrete Mathematics for Computer Science
- Multivariable Calculus
- Probability / Statistical Inference

# **Work Experience**

## Impero Software – Software Developer Intern

May 2018 – Present | Nottingham, UK

- Improved internal testing platform used to create virtual clients (via TCP) and simulate server stress by adding message sending and group functionality
- Corrected automated performance tests (Jenkins) by solving race conditions and properly removing/renouncing clients from the company server, allowing the program to pass 100% of tests (from 36%)
- Planned logic for company website to remember previously logged in users via cookies and enable the site to properly await confirmation for teacher login to Google Classroom
- Refactored token authentication/validation for company's web server API into key signing (and refreshing) and token validating classes for stronger encapsulation and security

## Teaching Assistant for CS 201 & CS 308

Starting August 2018 | Duke University

- Will grade student exams, lead discussions sections, hold office hours, and answer questions online for a class which introduces students to Java, hash maps, compression algorithms, and other data structures / algorithms ( 201 )
- Will read and give feedback for student code projects, design labs to introduce software development concepts such as lambdas, reflection, and event listeners and meet one-on-one with students to give personalized suggestions for code design ( 308 )

# **Projects**

## voogasalad – Game Engine (Java)

March 2018 - May 2018 | Duke University

- Developed a side-scrolling game engine for a 10-person group project of 15,000+ lines by implementing an Entity-Component-System design pattern sphereCrypt (Python)

June 2018 – Present | Nottingham UK

- Creating an encryption/decryption scheme from scratch which takes a message and bounces it around a virtual sphere to create an encrypted message that can be decrypted using the same mechanism

# Personal Website (HTML/Javascript/CSS)

July 2018 – Present | Nottingham UK

- Designing a webpage from scratch which displays personal interests and projects in a smooth, user-friendly way

# Community

## Computer Science Peer Tutor

September 2017 – May 2018 | Duke University

- Tutored students struggling in computer science courses to further explain course principles and improve understanding of difficult topics

#### VR Lab Assistant

February 2018 – Present | Duke University

- Prepared students and faculty to interact with Duke's virtual reality environments for recreational or professional purposes