# 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**

Computer Science and Math Senior Honors

#### Skills

## **Programming Languages**

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

#### Technical

Git, Virtual Machines, Command Line, Microsoft Azure, Jenkins

#### Relevant Coursework

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

#### Interests

Card Playing, Star Trek, Travel, Food, NBA, Skiing, Pixar

# **Work Experience**

# Impero Software – Software Developer Intern

May 2018 – August 2018 | 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 enabled the site to properly await confirmation for teacher login to Google Classroom
- Refactored token authentication & validation for company's web server interface for stronger encapsulation and security

# Teaching Assistant / CS 201 & CS 308

August 2018 – Present | Duke University

- Grade student exams, lead discussion 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 )
- Read and give feedback for student code projects and design labs to introduce software development concepts such as lambdas, reflection, and event listeners ( 308 )
- Meet one-on-one with students throughout the semester 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)

Summer 2018 | Nottingham UK

- Created an encryption/decryption scheme 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)

Summer 2018 | Nottingham UK

- Fully designed a webpage displaying personal interests and projects in a smooth, user-friendly way

# Community

# Computer Science and Economics Peer Tutor

September 2017 – May 2018 | Duke University

- Assisted students in computer science and economics courses

## Virtual Reality Lab Assistant

February 2018 – Present | Duke University

- Prepare students and faculty to interact with Duke's virtual reality environments