

# Charles Dracos

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## Education

### Duke University

Class of 2020  
Computer Science B.S.  
Minors in Economics  
and Philosophy  
GPA 3.53 ( 3.73 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/C++,  
MIPS, Python, HTML, CSS,  
SQL, XQuery, JSON, Bash

### Technical

Git, Terminal, Google  
Compute Engine, Google App  
Engine, Jenkins, Postgres,  
MongoDB, Paxos/RAFT

## Relevant Coursework

- Software Design & Implementation
- Data Structures & Algorithms
- Computer Architecture
- Operating Systems
- Introduction to Database Systems
- Discrete Mathematics for Computer Science

## Interests

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

## Work Experience

### 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 )

### 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%)
- Refactored token authentication & validation for company's web server interface for stronger encapsulation and security

## Projects

### thread\_library (C++)

October 2018 | Duke University

- Wrote a thread library that implements thread creation, yielding, locking, and condition variables along with a test suite which checked thread queue logic and proper context swaps with handoff locks

### 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

### Virtual Reality Lab Assistant

February 2018 – Present | Duke University

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

### Computer Science and Economics Peer Tutor

September 2017 – May 2018 | Duke University

- Assisted students in computer science and economics courses