# 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/C++,
MIPS, Python, HTML, CSS,
SQL, XQuery, JSON, Shell

**Technical**
Git, Command Line, Google
Compute Engine, Google App
Engine, Jenkins, Relational
Databases, MongoDB

## 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

### 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

### 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

### 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