

COLE GRANOF

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SOFTWARE ENGINEERING INTERN

OBJECTIVE

Eager and inquisitive Computer Science student with 4.0 GPA seeking summer internship opportunity that will leverage current knowledge in computer science, programming, and applied mathematics. Strong abilities in independent problem solving, creative thinking, and collaboration.

EDUCATION

WORCESTER POLYTECHNIC INSTITUTE, Worcester, MA

Expected June 2020

- Bachelor of Science Degree in Computer Science | GPA: 4.0

COMMONWEALTH SCHOOL,

Boston, MA. June 2016

HIGHLIGHTS

- Lead winning team in Software Engineering class to create kiosk application for Brigham and Women's Hospital, allowing users to get directions on a 2D or 3D map of the building, among other services
- Many personal projects involving graphical physics simulations and games (bandaloo.github.io)
- Understanding of unique programming paradigms from functional, procedural and object-oriented

COURSEWORK

Machine Organization and Assembly

Statistics

Vector Calculus

Object-Oriented Design

Linear Algebra

Differential Equations

Systems Programming

Operating Systems

Newtonian Mechanics

Electromagnetism

Discrete Mathematics

Software Engineering

Computer Graphics

Algorithms

Wave Physics

Network Security

Databases

TECHNICAL EXPERTISE

- Languages: C, C++, Java, Javascript, Python, Lua, Racket, SQL
- Other Experience: WebGL, OpenGL, SDL, LaTeX, git, Linux

PAST WORK EXPERIENCE

- Taught various programming classes in Java and Python at iD Tech summer camps to students ranging from 7 to 16 years old

RELEVANT PROJECTS ([GitHub: github.com/bandaloo](https://github.com/bandaloo))

- Created software for a Brigham and Women's Hospital kiosk in a group of ten using AGILE and Scrum methodology; daily scrums, burndown charts, and other tools helped us all work at our highest level
- Programmed multiple WebGL projects involving 3D graphics and transformations, including a rotating mobile that projects shadows, and supports various methods of shading
- Reimplemented the libraries used to control the Pi-top LED board so that students at iD Tech could write and test their LED matrix Python code virtually without the hardware for the LED board
- Built simple HTTP web server and client using C
- Programmed framerate independent particle engine using C and SDL
- Created multiple games and demos using various game frameworks and graphics libraries
- Used multiple VMs to simulate botnet communication disguised as game traffic by manipulating packets, and deployed an intrusion detection system on that network to thwart the botnet