Colin Mclaughlin

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Education

B.S. COMPUTER SCIENCE | 2020-2024 | TUFTS UNIVERSITY

- GPA: 3.89/4, Dean's List: F20, S21, F21
- Relevant coursework: Data Structures, Machine Structure & Assembly-language Programming, Intro to Security, Linear Algebra, Vector Calculus

DIPLOMA | 2016-2020 | CHELTENHAM HIGH SCHOOL

- GPA: 3.94/4
- Activities: National Honor Society Member, Ski and Snowboard Club Member, Ultimate Frisbee Club Captain

Activities

FUTURE PROBLEM SOLVING | 2012-2019 | TEAM MEMBER | 1x National Contender

- Worked in a team of four to find problems and generate creative solutions given a plausible future crisis.

ULTIMATE FRISBEE CLUB | MEMBER | TUFTS UNIVERSITY

Skills

- C/C++
- Vector Calculus
- Linux
- Microsoft Office Suite
- Creative Problem Solving
- Customer Service

Experience

COMPUTER SCIENCE INSTRUCTOR | CODING4YOUTH | JUN 2021 – AUGUST 2021

- Taught web design, Lua, game design, Fusion360, and more to K-12 students.
- Developed lesson plans, quizzes, and projects to help students develop their skills in a fun and engaging manner.

CUSTOMER SERVICE REPRESENTATIVE | TUFTS TECH SUPPORT | MAY 2021 - PRESENT

- Assisting Tufts students and faculty with troubleshooting and solving personal technology issues.
- Manage schoolwide ticketing system to check in computers in need of repair.

SUDOKU | PERSONAL PROJECT | C++

- Created a command line program to solve partially completed Sudoku puzzles through a git repository.
- Utilized a backtracking algorithm which relied on bit manipulation to store the solved digits of each row, column, and 3x3 square.

UNIVERSAL MACHINE | CLASS PROJECT | C

- Created a software emulation of a basic assembly language by programming a functioning "Universal Machine" which reads and executes from a set of 14 UM instructions.
- Instructions operate on eight 32-bit registers and can map memory segments, load new programs, and more.
- Maximized performance by analyzing code bottlenecks and assembly language (88% speedup).
- Created a working RPN calculator using an extended UM macro assembly language.