Andrew Burford

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EDUCATION

STONY BROOK UNIVERSITY
Aug 2018 - Dec 2021
B.S. in Computer Science
B.S. in Applied Math and Statistics
GPA: 4.0 Dean's list all semesters

COURSEWORK

Secure Distributed Networks
Computational Geometry
Security Fundamentals
MIPS Assembly Programming
Theory of Computation

SKILLS

PROGRAMMING

Fluent in:
Python • Bash • Javascript • C
MIPS Assembly • Java • MERN stack

Proficient in:
Rails • Swift • HTML/CSS • Lua

EXTRACURRICULARS

Stony Brook Running Club
President   Aug 2020 - May 2021
Secretary   Aug 2019 - May 2020

Stony Brook Competitive
Programming Club
Team Competitor   Sep 2019 - Present

AWARDS

Eagle Scout   2018

Stony Brook Competitive
Programming Contest
1st place in Senior category   2020
2nd place in Junior Category   2019

Greater New York ICPC Regional
Programming Contest
12th out of 65 teams   2019

PROFESSIONAL EXPERIENCE

SOFTWARE ENGINEER / COURSE DESIGNER
Milestone C | Woodbridge, CT   May 2020 - Aug 2020
- Designed and developed educational games in Javascript for high school and middle school students to learn STEM subjects
- Formulated lesson plans, slideshows, and practice problems for introductory programming courses with VEX V5 visual programming
- Created example Raspberry Pi projects that enabled a website or bluetooth Android app to control a physical output

HIGH PERFORMANCE COMPUTING ENGINEER
Stony Brook University | Stony Brook, NY   Feb 2019 – Present
- Perform software environment maintenance on Linux in a parallel file system over a variety of hardware environments
- Compile, optimize, and benchmark new software and resolve customer service tickets by troubleshooting and debugging system issues
- Install new servers and fix hardware issues for the university's high performance computing cluster

SOFTWARE DEVELOPMENT INTERN
FCE Consultants | Orange, CT   Jun 2018 – Aug 2018
- Developed data scraping programs in Python to collect contact information for 4000+ local businesses
- Parsed and handled a variety of websites and file formats such as PDF's and images that required the use of optical character recognition software to scrape information
- Designed and implemented software to clean up and expand our data set by performing reverse phone number lookups, website lookups, reverse address lookups, advanced duplicate checking, and more

PROJECTS

BEACON ATTENDANCE   May 2018 – Jun 2018
- Engineered a cryptographically secure solution for students to mark attendance in class via iOS devices
- Wrote a web server backend in Ruby on Rails, an iOS application in Swift, and a bash script to be run on a Raspberry Pi to create a Bluetooth Beacon (visit my GitHub for a more detailed explanation)

RUN LOGGER   2016 - 2017
- Independently designed and developed from scratch a fully functional iOS application that was published on the iOS App Store
- The application allowed runners to easily track and record their runs right from their iPhone, iPad, or Apple Watch