Aaron Bowen

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EDUCATION Tufts University, Medford, MA

Bachelor of Science in Computer Science and Electrical Engineering, 2017

GPA: 3.57, Dean's List (all semesters)

RELEVANT COURSES Algorithms, Programming Languages, Computer System Security, Machine Structure and

Assembly Language, Data Structures (audited), Linear Systems, Microprocessor Architecture,

Digital Electronics, General Electronics, Probabilistic System Analysis

Image Compression: Pair-programmed software according to narrow specifications for

compressing a PPM image by 75% and decompressing it back to its original format

Android App: Collaborated with a team of student entrepreneurs to develop an Android app

Binary Bomb: Derived expected input for a complicated program by reading its AMD64

assembly code – incorrect input would explode a theoretical "bomb"

Blood Pulse Oximeter: Designed and constructed an infrared pulse oximeter sensor and signal

cleansing circuit

ACTIVITIES Tufts PolyHack 2015: Built a snakes-and-ladders game that used web sockets to concurrently

handle input from multiple users – achieved finalists status in overall hackathon judging

JumboCode: Lead development on student team to build a web app pro-bono for a non-profit

SKILLS Languages: C, C++, C#, Java, SQL, JavaScript, Python, Perl, CSS, HTML, VBA, AMD64 Assembly

> Software: Git, Microsoft SQL Server, Vim, PowerShell, SPICE, LabVIEW, MATLAB, SolidWorks Frameworks and Technologies: .Net Framework, AngularJS, NodeJS, ExpressJS, Heroku

Hardware: Breadboard wiring, soldering

Foreign Languages: Spanish (intermediate), German (intermediate)

EXPERIENCE Valetude, LLC. Healthcare Software and Services

Wakefield, MA

Software Development Intern

Summer of 2015

- Led several projects to create secure, data-driven internal web tools (C#, JS, SQL, Git)
- Completed a self-directed data warehousing project using the Extract-Transform-Load methodology (Powershell, C#, Python, SQL, Git)

Olin College of Engineering REU

Needham, MA

Undergraduate Engineering Education Researcher

Summer of 2014

- Researched engineering education by collaborating with professionals in the field and compiling literature reviews
- Analyzed data for human research with a small team of students and mentors
- Implemented qualitative and quantitative statistical analysis with R and Excel

Superior Diesel Inc.

Rhinelander, WI

Summer Intern

Summer of 2013

- Modeled engine housing components with SolidWorks and participated in the assembly and testing of final product
- Created Visual Basic macros in Excel for the automation of data formatting in several departments and company-wide inventory organization

PROJECTS