# **Aaron Bowen**

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**EDUCATION** Tufts University, Medford, MA

Bachelor of Science in Computer Science and Electrical Engineering, 2017

GPA: 3.52, Dean's List 4 of 4 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

**PROJECTS Evoqe:** Collaborated with a team of student entrepreneurs to develop an Android app for

college students (self-taught Android development)

Image Compression: Built a program according to narrow specifications to compress a PPM

image by 75% and to decompress it back to its original format

Turing Emulator: Pair-programmed a universal Turing machine emulator

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

SKILLS Languages: C#, C, Java, SQL, JavaScript, CSS, C++, Python, Perl, AMD64 Assembly, Visual Basic

**Software:** Git, Microsoft SQL Server, Vim, PowerShell, LTspice IV (circuit design) **Frameworks and Technologies:** Nancy web framework, .Net Framework, jQuery

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 web apps for internal company use, with successful completion (C#, JavasScript, SQL, Git)
- Completed a self-directed database warehousing project involving data extraction from client files, data transformation and staging into a SQL database, and data loading into a production database (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.

Summer Intern

Rhinelander, WI Summer of 2013

- Learned the basic functions of the Purchasing, Engineering, Production, Sales, and Accounting departments by rotating through each
- Created Visual Basic macros in Excel for the automation of data formatting in several departments and company-wide inventory organization