



# Alec Warren


PROGRAMMER | TINKERER  
HE/HIM/HIS


 [AlecWarren.com](http://AlecWarren.com)

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 717-216-9596

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## LANGUAGES

**Advanced:** Python, HTML, CSS

**Proficient:** JavaScript, jQuery, C#,  
C/C++, Java, JSON, Assembly

**Familiar:** SQL/MySQL, Bootstrap,  
Sass, Django, Flask, Node.js, PHP,  
Matplotlib, WordPress

## SOFTWARE

**Advanced:** Full Suites: Microsoft  
Office and Google Drive

**Proficient:** Autodesk Inventor, AWS,  
Visual Studio, VSCode, Adobe  
Premiere, Illustrator, After Effects

## SKILLS

### CS Specific:

- ♦ Full Stack Development
- ♦ Object-Oriented Programming
- ♦ Web & REST API & HTTP Servers
- ♦ Machine Learning & Neural Nets
- ♦ GNU / Linux   ♦ UI & Web Design
- ♦ AWS & DNS   ♦ GitHub / Git

### Tech Related:

- ♦ 2D & 3D Modeling & Design
- ♦ Robotics   ♦ Soldering
- ♦ Circuits   ♦ Arduino & RPi

### Other:

- ♦ Leadership   ♦ Inquisitiveness
- ♦ Mentorship   ♦ Determination
- ♦ Spanish Fluency

## HONORS

- ♦ Intel International Science and  
Engineering Fair (ISEF)  
Participant | **2018, 2019**
- ♦ Capital Area Science and  
Engineering Fair Grand  
Champion | **2018, 2019**
- ♦ National Spanish Exam Silver  
Medal | **2019**

## INTERESTS

- ♦ IOT / Embedded Systems
- ♦ Speakers & Audio Systems
- ♦ Bodybuilding   ♦ Machine Vision
- ♦ eSports   ♦ Fabrication

## PROJECTS ([portfolio.alecwarren.com](http://portfolio.alecwarren.com))

**Sadie Spot Server** | Multi-Use Home Server Jul '19  
*Web, File, HTTP, and Game Server Running Ubuntu* - Present

- ♦ Designed and implemented a custom REST API using Python Flask
- ♦ Public facing API connects various personal projects over the internet
- ♦ Webserver hosts various public personal websites via LAMP stack

**Four-Way Autonomous Intersection Simulation** Oct '17  
*Self-Driving Car A.I. without Need for Traffic Lights* - May '19

- ♦ Created a 2D simulation from scratch with realistic physics in C#
- ♦ Invented decentralized AI, inspired by swarm intelligence
- ♦ Back-to-back regional science fair victories and entries into ISEF

**ThinkNexusDesign.com Website** Nov '16  
*Commercial Website Developed From Scratch* - Present

- ♦ Designed using HTML, CSS, and JavaScript with jQuery
- ♦ Made fully responsive with four breakpoints: Mobile to Desktop

## EXPERIENCE

**Netrepid** | Programming Intern May '19  
Harrisburg, PA - Aug '19

- ♦ Maintained and repaired Netrepid's website
- ♦ Created and published a new fully responsive tool page w/ SSO
- ♦ Developed multiple full-stack web apps to automate tasks by creating integrations between different services via their APIs

**Skills Used:** Full-Stack Development, Python (Django), JavaScript (jQuery, NodeJS), HTML, CSS, MySQL

**Self-Employed** | Web Designer/Developer Sep '16  
Harrisburg, PA & Boston, MA - Present

- ♦ Created ThinkNexusDesign.com in late 2016 and have been slowly upgrading it since - published major update V2.0 in 2019

**Harrisburg Academy** | IT Intern Jun '15  
Harrisburg, PA - Aug '17

- ♦ Removed, reinstalled, and troubleshot entire phone system
- ♦ Reset and upgraded faculty laptops for yearly reset

## EDUCATION

**Northeastern University** | Boston, MA Sep '19  
*Khoury College of Computer Sciences* | 3.0/4.0 GPA - Apr '24

BS in **Computer Science** | AI Concentration | **Robotics** Minor

**Relevant Coursework:** Foundations of AI, Programming in C++, Embedded Design, Intro to Web Dev, Object Oriented Design, Algorithms & Data, Mathematics of Data Models, Linear Algebra, Theory of Computation

**Harrisburg Academy** | Wormleysburg, PA Jan '05  
*Valedictorian* | *Varsity Triathlete & Captain* | 4.0/4.0 GPA - Jun '19

International Baccalaureate (IB) Full Diploma Recipient  
VEX Robotics Team Captain & Co-Founder

**Self-Driving Car Nano-Degree** | Udacity Oct '17  
*Computer Vision & Machine Learning via Python & C++* - Feb '18