

ALEX VERMILLION

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IL → AZ → MD

An interesting or impactful problem is worth the effort.

EXPERIENCE & EDUCATION

Computer Engineer @ United States Army (Government Civilian)

06/2021-Present

Classified work. Studied government specifications including cryptography and the certification of cryptographic modules, evaluated Small Business Innovation Research projects, created user-friendly automated testing scripts in Bash, audited very large C++ codebase(s), created technical documentation, and attended conferences.

Computer Science BSc @ Arizona State University

Honors Degree @ Barrett, the Honors College

09/2017-05/2021

Learned basics of discrete mathematics, digital logic design, abstract theoretical computer science, and more. Supplemented classwork with private projects.

Capstone: a simple game for the NASA Psyche Mission called "Psyche Driller". Used Godot and Agile methodology to design an easy-to-modify game with a group.

Honors Thesis: "SSB and Whuffie". Studied reputation-metric design in Secure Scuttlebutt, a distributed social network.

"Rendering Bullets" @ ASU's Devil's Invent

11/2017

In 18 hours, learned about the Human Interface Device operating mode for Raspberry Pi Zero prototyping boards, modified Open Source libraries to create the functionality needed, and wired up a programmable platform-agnostic wired controller capable of sending arbitrary keystrokes to any device with a USB A input. We were awarded first place, along with a grant of \$1,000 in order to continue our project.

"CamGuard" @ ASU's Devil's Invent

09/2017

In 18 hours, used OpenWRT and a Raspberry Pi to create an IOT wireless access point with extensible security methods. We were awarded first place, along with a grant of \$1,000 in order to continue our project.

SKILLS

I'm too early in my career to have a good portfolio and too busy for credentials. Below I have a list of skills that I've used in personal projects or one-offs at work. I'm a quick learner and am ready to dip my toes into anything I haven't listed.

HTML+CSS

C

C++

Java

Rust

Haskell

Python

Algorithms

Data Structures

Theoretical CompSci

Proofreading

Creative Design