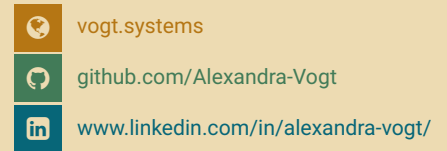
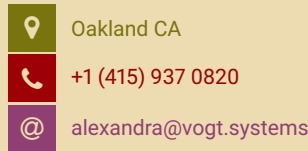


ALEXANDRA VOGT

Software Developer



WHO AM I?

I am Alexandra Vogg and I love computer science, from its most basic fundamentals in Turing machines and assembly to it's most complicated in massively parallel systems. I also love programming and have had experience developing software in a variety of different languages and paradigms. I strive to bring to the table my best. I want to help create a better, brighter tomorrow through software development and organization. I make it a priority to be a team player that produces good, readable, idiomatic code.

EXPERIENCE

Contractor at PAI Security

May 2020 - Now

I developed product development roadmaps and performed time critical path analysis to determine the most efficient way to develop products. I conducted research into systems design and developed a framework for the product backend. I also developed wire-frames and frontend development to aid in UI design for the product.

Miscellaneous Contracting Work

May 2020 - Now

I aided clients with technical problem solving and software development such as data aggregation, wireframe creation, and web development.

PROJECTS

Cloud Native Containerized Website

github.com/Alexandra-Vogt/personal-website

I use the gotty terminal on a docker container to serve up a simple but restricted linux experience to the user. It implements a web browser accessible shell in a sandboxed environment allowing anyone to log on and use projects I have created. However it also provides restrictions against DOSing the server. The project makes substantial use of the GCP bash API.

Python / Docker / Google Cloud / *nix OSes

Cubes Game

blog.vogt.systems/cubes-site

Cubes is a possibly misnamed videogame about dodging moving squares on a 2d plane that you can play in the browser. The red squares move as a function of your speed, indomitably advancing on you as you attempt to collect as many blue point cubes as possible. Every second counts as the number of oncoming red cubes increases as a function of time.

Clojurescript / Quil

Lunar Arithmetic Language

github.com/Alexandra-Vogt/lc

I developed a esoteric programming language with symbol completion in python. I learned how to write a parser and lexer as well as how to develop code that would be extensible in the future. To develop it I overcame challenges such as the implementation of errors and the gradual expansion of the language to include more and more features.

Python / Language Design

Eris Discord Bot

github.com/Alexandra-Vogt/eris

Eris is a discord bot for running code and other similar things written in discord comments and prefixed by an invocation sequence as well as a calculator. In creating the bot I learned how to process untrusted user input and provide facilities for logging user inputs, providing a friendly interface for users, and managing user permissions to various subsections of the bot.

Python / System Architecture / Languages

Virtual Machine in C++

github.com/Alexandra-Vogt/system-b

I developed a basic memory to memory little endian word addressable virtual machine. The machine had with a von Neumann architecture with IO conducted via a shared memory address space. This project made me understand the beauty in computer architectures and also made me appreciate the complexity within hardware design even though it was not in itself hardware design. Furthermore it made me overcome challenges with the design of a Turing complete emulation of a computer with its own assembly language.

C++ / OOP / VM Design

HOBBIES

I enjoy writing and reading fiction as well as poetry and painting on my free time I also enjoy coding on my free time and am rather interested in number theory and language design.

EDUCATION

El Camino College
Majored in Computer Science
Took Cybersecurity and Digital Forensics Classes
Oct. 2017 – Jun. 2019