

# Michael Dresser

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## Skills:

Software: Python, C++, Java, Scheme, HTML, CSS, Elm, Git, AWS Lambda, Heroku, spreadsheet interfacing

Project management: organizing data and materials, spreadsheet management, Gantt chart creation, team management

Tech: Computer hardware troubleshooting, software troubleshooting, data recovery, computer construction

## Projects:

Space Invaders 2016

- Implementation of Space Invaders in Python using PyGame.

Elm Talk to Obama – HackCU Local Hack Day 2016

- Webpage written in Elm to pull data from the talk-to-obama service and display it.

Her / Alexa Clever Bot – Tackle STEM Hackathon, Best Demo 2016

- Alexa Skill that provides more meaningful conversations with Alexa. Utilizes AWS Lambda and the Alexa SDK.

Markov Server – Tackle STEM Hackathon 2016

- Flask server that outputs sentences generated by a Markov chain from a source text.

Obama Meme Generator – Tackle STEM Hackathon 2016

- Generates memes from pictures of Obama and Markov-generated sentences from the talk-to-obama service.

Scouting Data Entry and Analysis 2016

- Application using openpyxl and Tkinter for data entry into spreadsheets. Data pulled into a master analysis sheet.

Maze Game 2016

- Maze-solving game in C++ that can import a rectangular user-defined maze of any size. Game is unique in that the player can only see a certain area around their character based on character type.

Packet Sniffing 2015

- Python application developed from a guideline using Scapy to take .pcap files and analyze their contents for relevant information. Currently half-complete due to difficulties with reconstructing packets.

## Work Experience:

CU Boulder Office of Information Technology Boulder, CO 2016-present

Student Computer Support Technician

- Provided support with virus/spyware remediation, email setup/transfer, printer setup, driver installation, software installation/uninstallation, OS reinstallation/setup, network issues, OS boot failure recovery, data recovery.

Gunn Robotics Team Gunn High School, Palo Alto, CA 2014-2016

CNC Lead, CNC Machinist

- Fabricated complex aluminum parts, organized team scheduling, planned and executed training program for other students, and improved machining efficiency by over 30% to mitigate a 100% increase in part load.

Strategy Lead

- Formed/lead group to inform robot design and develop a scouting system for use in current year and the future.

Prototyper

- Designed and built a flywheel launching system with teammates for a robot that launched t-shirts over 50 feet.

Gunn Theatre Gunn High School, Palo Alto, CA 2012-2016

Stage Manager, Assistant Stage Manager

- Organized rehearsal scheduling, coordinated multiple directors, coordinated tech and acting during production and performance, maintained stage materials, operated theatrical elements, and ran shows.

<b>Coursework:</b>	CS 2: Data Structures	CS 1: Starting Computing	HC Computing Prof. Dev.
	Calculus 2	Calculus 1 for Engineers	General Physics 2
	AP CS (High School)	Functional Programming (High School)	OO Programming (High School)

**Education:** University of Colorado Boulder, B.S. Computer Science (ongoing)

**Awards:** Tackle STEM 2016 Best Demo National Merit Scholarship Finalist