# Josh Kean

JoshKean.com
Josh@JoshKean.com | 925-783-8908

## Programming Languages, Libraries, and Frameworks

Python, JavaScript, React, Solidity, Truffle

## Recurse Center

*A self-directed, 12 week retreat for computer programmers.*
August 2019 – Present, Participant

### Mnemonic Phrase Generator

- Implemented BIP-39 in Python to create mnemonic phrases and Bitcoin private keys.
- Created a library to perform mathematical operations on elliptical curves.
- Organized different phases of entropy collection and hashing into a class structure.
- Designed a GUI using Tkinter with the ability to generate a new mnemonic phrase and private key, or create a private key from a user provided mnemonic phrase.

### Music Synthesizer

- Used NumPy to create WAV sound files based on music note frequencies and sampling rates.
- Programmed a reactive GUI that receives user inputs and plays specified musical notes.
- Organized code into objects and classes so features can easily be added in the future.

### Snake Game

- Created a video game using Python and PyGame.
- Defined parent and child classes to manage variables and functions within different states.
- Wrote Python scripts to auto-generate multi-hundred item dictionaries.
- Implemented keyboard controls to let players control game elements.

### Independent Study

- MIT Online Introduction to Algorithms Course.
- Studied the Rust Programming Language.
- Learned Solidity using Cryptozombies.io.

## Experience

Underground Construction, Project Engineer
June 2017 – July 2019

- Managed multi-million dollar jet fuel distribution projects.
- Communicated with clients regarding cost, schedule, and project design changes.
- Performed monthly financial audits of construction projects.

## Education

San Francisco State University, BS in Mechanical Engineering
Graduated December 2016

- Calculus
- Physics
- Differential Equations
- C# Programming
- Digital Signal Analysis
- Automatic Control Systems