

Josh Kean

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Summary

Self taught software engineer with 1.5 years of experience writing computer programs in Python and JavaScript. Constantly learning new programming concepts and languages, while also improving my developer skills.

Programming Languages, Libraries, and Frameworks

Python, JavaScript, Solidity, NumPy, PyGame, React, 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 Python library that performs elliptic curve multiplication and addition.
- Organized different phases of entropy collection and hashing into a class structure.

Music Synthesizer

- Used NumPy to create .WAV sound files based on various frequencies and sampling rates.
- Programmed a reactive GUI that receives user inputs and plays specified musical notes.
- Invoked parallel processes so program functions were always available.

Snake Game

- Wrote Python scripts to auto-generate multi-hundred item dictionaries.
- Managed all elements in parent and child classes to streamline object communication.
- Created different program conditions that affected the difficulty of the game.
- Implemented keyboard controls to let players control game elements.

Independent Study

- MIT Online Introduction to Algorithms Course.
- Studied the Rust Programming Language.
- Learned React through a Udemy course.

Past Work Experience

Underground Construction, Project Engineer

June 2017 – July 2019

- Wrote Microsoft Excel macros that improved project documentation methods.
- Managed multi-million dollar jet fuel distribution projects.
- Performed monthly financial audits of construction projects.

Education

San Francisco State University, BS in Mechanical Engineering

Graduated December 2016

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