

Copeland Carter

Data Scientist | Software Engineer

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Skills

- **Languages** | Python, R, Bash, JavaScript, HTML
- **Libraries** | pandas, polars, numpy, dyplr, tidyverse, PySpark, Tensorflow
- **Graphing** | ggplot2, plotly, seaborn, matplotlib
- **Tooling** | Linux, Docker, Streamlit, RDBMS, RDBMS, REST APIs, Git, GitHub, Jira

Experience

Client Work

Custom Report and Graphs for Client

- Wrangled data from multiple sources, including the US Census and the ACS, using R, Python, and Streamlit to create a custom report for a paying client

EZRegex

Published Python Package and Web Frontend

- Developed *EZRegex* from scratch, a library which greatly simplifies Regular Expression syntax
- Has a web frontend on ezregex.org, which includes a suite of tools to aid in developing Regular Expressions
- Is a fully open-sourced Python package published on PyPi.org

GeoDoodle

Custom Drawing Program

- Develops and maintains a web app allowing users to create unique patterns on a graph paper-like interface
- Designed an intuitive frontend with features like drawing, repeating, and seamless pattern export

Senior Project

Custom Machine Learning Environment and Algorithms

- Designed a custom gym environment from scratch to attempt to solve the Square Packing problem
- Modified a DDGP actor-critic model and attempted to teach it to find a better configuration than the best known configuration for N=11 squares

Building Predictions

Team Data Science & Machine Learning Project

- Worked with a team over several months to aggregate multiple datasets across several platforms and APIs
- Used ML to predict by county where the next Latter-Day Saint temple will be placed

AntAI

Custom Machine Learning Environment and Algorithms

- Designed and built a simulated game environment from scratch in Python in order to use TensorFlow to create a deep reinforcement learning model to complete it
- Designed and built an evolutionary algorithm from scratch to use simulated annealing to solve it

Work Experience

Accendero Software

Intern | February 2024 - July 2024

- Developed both the frontend and backend of a complex, data science oriented pharmaceutical software suite for a client
- Worked as part of a team of engineers to write and test a complex Python Django framework
- Developed and tested a large React TypeScript web application using CI/CD to maintain client satisfaction

The Homestead Assisted Living

Head of IT | April 2019 - September 2022

- Provided technical support and maintenance services for an assisted living center, successfully maintaining and improving the facility's infrastructure and IT systems over several years
- Had the patience of a saint setting up and teaching elderly residents how to use their technology

Education

Brigham Young University - Idaho

Rexburg, ID | April 2019 - July 2024

Graduated with a Bachelor's in Computer Engineering and a Machine Learning Certificate