

Shawn Strausser

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WORK EXPERIENCE

Self Employed

Feb. 2023 – Present

Machine Learning Engineer

Detroit, Mi

- Collected and analyzed a dataset of 15M poker hands, providing data-driven decision-making processes to clients, increasing profit over 300% in the first year. This unstructured dataset is characterized by noisy features/labels and severe class imbalance.
 - Led the data collection process and feature engineering to improve machine learning models, identifying scenarios where more data was needed and what to collect.
 - Fit machine learning pipelines, from feature extraction and selection to model selection and validation, that learned to classify the top 10% of players, providing insights on which features were important for successful strategies.
 - Model and predict player behavior using clustering techniques and convolutional neural networks.
 - Identified outliers, revealing common traits that lead to significant success or failure.

EDUCATION

University of California - Irvine

September, 2022

Ph.D., Biophysics

Irvine, Ca

- Studied the molecule cryptochrome and its role in magnetic sensing in biology. Combined biochemical reaction models with quantum physics to develop a model capable of explaining experimental results.
 - Presented research at The Royal Institute of Navigation conference on animal navigation hosted in London.
 - Held office hours, answering questions and providing academic guidance, particularly to first-generation students.
 - Used genetic based algorithms to optimize the performance of the compass
 - Solved Shrödingers equation, a set of 64 coupled partial-differential equations using Fortran/Lapack on a high performance computing cluster via openMPI

University of Michigan, Ann Arbor

September, 2014

BS, Mathematics

Ann Arbor, Mi

- Member of professional engineering society Theta Tau, Society of Physics students, and AmeriCorps.
- Recipient of Devlin scholarship for outstanding academic performance and volunteer work.

SKILLS & INTERESTS

- **Skills** *TensorFlow, High Performance Computing (Fortran/Lapack, OpenMPI, CUDA, IntelMKL), PostgreSQL*
- **Interests** *running, chess, poker, stock market and real estate investing*