Isaac Hershenson

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Los Altos, CA, 94022

Industrious and curious Computer Science and Math major looking to work with big data and machine learning in a high paced, challenging environment. Interested in the development and math behind machine learning algorithms applied to complex, real-world data sets.

Education

Phillips Academy Andover – Class of 2020
Harvey Mudd College – Class of 2024
B.S. in Computer Science/Math **GPA**: 3.8 **TA for** Logic and Computability, Algorithms, and Programming Languages
Activities – Claremont Colleges Club Soccer Head Coach, Crescent Fund Investment Partner

Research Experience

Harvey Mudd College, Dr. Susan Martonosi, Math Department (January 2023 - Present)

- Devised a new approach to analyzing defensive pressure in soccer, which improves upon existing metrics by introducing context.
- Pioneered an algorithm to identify pressing events from tracking and event data and then assign value to each frame based on context features extracted from the data.
- Presented a poster at the 2023 CMU Sports Analytics Conference
- Working on submitting a paper to the Journal of Quantitative Analysis in Sports

Harvey Mudd College, Dr. Lucas Bang, Computer Science Department (January 2022 – May 2023)

- Built a proof checking machine for Group Theory that enables students to write proofs and check the validity as they progress.
- Coordinated a team of 4 by organizing weekly meetings, assigning tasks, and synthesizing the team's work by making our poster.
- Won best poster prize at Southern California Applied Mathematics Symposium 2023

Computer Science Professional Experience

Bayer Leverkusen, Leverkusen Germany/Remote (June 2023 - Present)

- Developing original machine learning models for use by men's first team scouts and analysts.
- Created unique internal tools to leverage various data sources for coaches and analysts, that were used for scouting and during live games to assist the coach with in-game adjustments.
- Pioneered internal KPI's using tracking data that were used by analysts to evaluate live games and future opponents.

X (formerly Google X), Mountain View CA (May 2022-August 2022)

- Developed novel temporal harmful algae bloom forecasting model using Python and Google Cloud Services.
- Assimilated large datasets into machine learning model, optimized data pipeline, and conducted research which informed feature and model decisions.
- Built an innovative seagrass detection machine learning model from satellite data which achieved 97% accuracy.

Accenture, Los Altos CA (June 2021-August 2021)

- Developed cutting edge predictive modeling of patient spending habits using Microsoft SQL Server and Jupyter Notebooks.
- Executed data queries and worked on developing data practices for Kaiser Permanente doctors and nurses that aided them in decision making.

Computer Science Contract Projects

Pear VC (February 2023-May 2023)

- Created several new features for the Pear. OS, a tool for internal deal flow tracking that is used by all partners at the firm.

Oddsjam (September 2022-December 2022)

- Fixed bugs and added new functionality using React to website which identifies arbitrage across different sportsbooks.

Independent Contractor (March 2020 - August 2020)

- Coded bots to monitor the availability of exclusive shoes and integrated with discord to notify users of stock updates.