Hao Hao

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Education

Southern University of Science and Technology (SUSTech) Sept. 2021 – Present
Bachelor of Mathematics Shenzhen, P.R.C
Bachelor of Physics (Transferred to Mathematics, 2024)

- **GPA:** 3.74/4.0 (Rank: 14/71)
- **AWS in Mathematics and Physics Major Courses:** 93 (Applied Stochastic Process(100), Probability Theory(97), Asset Pricing and Risk Management(98), Thermodynamics and Statistical Physics(94))

Internship

Data Analyst Jun. 2025 – Precent
Zhejiang LeapAI Technology Co., Ltd. &Zhejiang Leapmotor Technology Co., Ltd. Hangzhou, P.R.C

Cost Analysis in Design Modifications

- Analyzed the EWO data from **52 departments** and **4 types** of change actions, identifying the impact of **13 different change types** on cost variations. The analysis covered vehicle cost changes across **7 project stages**, from EP to SOP, as well as the performance of **22 departments** in the overall cost variation. The goal of this analysis is to monitor the cost changes caused by design modifications.

Continuous Learning and Knowledge Exchange

- Establishing an "English-only time" and wrote an English research report on data-driven approaches to digital transformation in companies, fostering collaboration between the data team and Stellantis on key projects.
- Organized the Digital Transformation Solution Design Competition. The event saw a participation rate of **90%**, with **200 participants** contributing innovative solutions.

Data Analyst Jul. 2024 – Sept. 2024
Hangzhou Jiushuo Network Technology Co., Ltd. & Zhejiang Leapmotor Technology Co., Ltd. Hangzhou, P.R.C

Analysis of Body Dimensional Errors

- Calculated the VFS values for the error offset between each pair of **1121 measurement points** from **10 sets** of measurement data, resulting in a three-dimensional error correlation dataset, which provided data support for the construction of a deviation propagation network.
- Divided the 1121 measurement points into **13 regions** and calculated the PageRank values for each part of the vehicle body. By ranking the key points based on their impact range, the critical measurement points were prioritized, helping the dimension engineers make efficient tooling adjustments for core measurement points, leading to a **8%** reduction in the roof area dimensional error.
- Organized **50 sets** of point error measurement data into time series and applied an LSTM model to predict errors for a specific measurement point in the X/Y/Z directions. By issuing early warnings for error quality issues, proactive measures such as equipment adjustments were taken, resulting in a **12%** reduction in production line resource usage.

Precision Marketing and User Behavior Prediction

- Analyzed the recharge behavior and in-vehicle operation of **12,500 car owners** across two dimensions. Applied K-means clustering to three evaluation indicators, resulting in four distinct recharge behavior profiles and four in-vehicle operation profiles. By cross-referencing these 2 clustering results, **4 complete user group profiles** were constructed.
- Statistical features were extracted using 7-, 15-, and 30-day windows. To address multicollinearity, highly correlated features were removed. Subsequently, class balancing was performed, resulting in **2,943 samples** and **34** model features. After comparing four classification models—XGBoost, Random Forest, Logistic Regression, and LightGBM—the final model achieved a **76.06%** prediction accuracy, **70.37%** precision, and an AUC of **0.8009**. These models enabled precise targeting of traffic advertisements, resulting in a **23%** increase in exposure and a **19%** reduction in marketing resource costs.

Continuous Learning and Requirement Fulfillment

- Authored **8 weekly internship reports**, which were adopted as a model template for intern training and integrated into the

company's future internship development program.

- Quickly mastered enterprise-level big data architecture, demonstrating proficient in **BI** and **ETL** tools to visualize data projects and develop project dashboards. Completed **7** business requirements and **15** dashboards.

Learned resource scheduling and organizational architecture from CEO, completed simulated projects from a managerial perspective, and wrote two simulated project reports from this viewpoint, receiving positive feedback from the CEO.

Projects

College Student Innovation and Entrepreneurship Practice: Building the Target Plateau Magnetic Model May. 2024 – May. 2025

- Extracted ultra-low frequency signals from geomagnetic data at the Kakioka (reference) and Kiyosumi (target) stations, employing the LSTM model for time series data modeling and prediction, along with wavelet transform techniques for signal processing. Successfully predicted geomagnetic signals, improving on traditional linear regression models.
- Achieved high-resolution geomagnetic signal restoration using a sliding window mechanism and reconstruction methods. Reduced errors by **70.80%** for the X component and **54.56%** for the Y component at high Kp.
- Awarded a **National-level Project Grant** for the innovative approach.

Cryptocurrency Trading Strategies Based on Cointegration Relationships Sept. 2024 – Jan. 2025

- Utilized cointegration analysis to establish relationships between different cryptocurrency pairs, identifying long-term stable pairs that formed the foundation for designing a cointegration-based arbitrage strategy.
- Applied the GARCH model to quantify volatility in the cryptocurrency market. Optimized the trading strategy with dynamic risk control measures, including setting stop-loss and take-profit orders and adjusting position sizes to mitigate losses from extreme market movements.
- Enhanced the strategy using risk evaluation metrics such as maximum drawdown and Sharpe ratio. Reduced the maximum drawdown to below **10%** and increased the Sharpe ratio to **1.5**, demonstrating effective risk control. Achieved a profit-to-loss ratio of 1.8 and improved the overall win rate to over **60%**.
- Awarded **bonus points** and ranked in **the top 5%** in Financial Time Series Analysis course project evaluation.

AI-Powered Study Room with College Student Tutors and Supervision Jan. 2022 – Present

- Inspired by the "accompanying study mother" model, co-founded an innovative study room integrating college student tutors and AI supervision, designed to help high school students overcome academic challenges during holidays. Tackled key challenges of time management and complex problem-solving faced by high school students during the vacation period. Established a strong reputation in local high school parent groups.
- Successfully operated this model across **5** winter and summer breaks, with **86 students participating**, generating a net profit of **70,000** RMB.

Leadership

President Sept. 2022 – Jun. 2023
Piano Club & High-Level Arts Troupe

- Having practiced piano for 16 years, possessed a **lifelong learning ability** and a long-term perspective.
- Eepresented SUSTech in competitions and shows, including a **Special Gold Award** and an **Outstanding Demonstration** at the National Aesthetic Education Achievements Exhibition.
- Led the organization of a public musical salon in collaboration with the Shenzhen Concert Hall and SUSTech. The event attracted **300 attendees** and has become an annual tradition, showcasing the university's achievements in arts education

Vice Captain & Vice President Oct. 2023 – Sept. 2024
University Rowing Team & Rowing Association

- Joined the university rowing team in October 2023 after a competitive selection process; represented SUSTech in over 10 major competitions, securing five medals, including **one gold**.

Awards

First Class of the Merit Student Scholarship Nov. 2024

- Ranked in the top 5% of the cohort in comprehensive performance evaluation.