Haochen Liu

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Education

University of Michigan, School of Information Aug. 2025 – Present
Master of Science in Information, Big Data Analytics *Ann Arbor, MI*

Relevant Coursework: SI 500 Problem-Solving with People, Information, and Technology; SI 504 Servers, the Shell, and Git; SI 506 Programming I; SI 507 Intermediate Programming; SI 544 Introduction to Statistics and Data Analysis; SI 568 Becoming a Data Scientist; SI 618 Data Manipulation and Analysis; **EECS 545 Machine Learning**

Tsinghua University Sept. 2018 – Jul. 2024
Bachelor of Arts in Academy of Arts & Design; Minor in Product Design *Beijing, China*

Relevant Coursework: Programming Fundamentals (C/C++); Mathematics for Arts (covering Calculus and Linear Algebra); Introduction to Mathematical Modelling; Design Engineering Application; Design Thinking; User Research Method; The Research of Design and Marketing Methods; Human Factor Engineering in Industrial Design; Industrial Design Presentation; Computer-Aided Design; Manufacturing Engineering Practice

Experience

Zhongguancun Academy × ZGC Institute of AI Apr. 2025 – Aug. 2025
Industrial Design *Beijing, China*

- **Led the full industrial design of DeepCybo Prime,** owning the humanoid robot's form language, exterior styling, and visual identity.
- **Delivered concept sketches, presentation drawings, detailed 3D models, and engineering-aware packaging,** coordinating shell boundaries, articulation clearances, and motor-module placement with mechanical constraints.
- **Balanced expressive design intent with manufacturability** so the final robot proposal could remain visually distinctive and buildable.

Noetix Feb. 2025 – Apr. 2025
Industrial Design *Beijing, China*

- **Designed the industrial form language for Xiao Nuo,** covering the head-and-torso architecture and the product's visual character.
- **Built detailed 3D surface models and presentation-ready assets,** refining topology, screen placement, neck transitions, and manufacturable shell geometry for reviews and engineering discussion.
- **Communicated form refinement and product personality** across concept reviews and engineering discussions.

Kuaishou - Top Short-video Platform in China Competing with TikTok Feb. 2024 – Jun. 2024
Commercialization Product Manager Intern *Beijing, China*

- **Identified ad performance optimization needs** by analyzing targeting and conversion-tracking bottlenecks that limited advertisers' ROI and user engagement.
- **Conducted A/B testing and predictive targeting analysis** with Python, SQL, decision trees, random forests, and regression models to improve campaign precision and budget allocation.
- **Enhanced attribution and tracking** through Mobile Measurement Partner deep-link integration, improving conversion-tracking accuracy by 20%.
- **Drove measurable business impact:** 20% higher conversion-tracking accuracy, 5.03% increase in advertisers' ROI, 3.31% higher retention, and 8.47% month-over-month revenue growth.

SAIC-GM / Pan Asia Technical Automotive Center (PATAC) Jun. 2021 – Feb. 2022
Automotive Interior Design Intern *Shanghai, China*

- **Supported interior design programs for concept and production vehicles,** contributing to cabin form studies, touchpoint development, and user-experience direction.
- **Created sketches, renderings, and digital models** while collaborating with designers and engineers to balance aesthetics, usability, engineering constraints, and brand language.
- **Iterated interior proposals through collaborative reviews** with design and engineering teams.

Projects

WSDM Cup 2025: Multilingual Chatbot Arena Nov. 2024 – Mar. 2025

- **Developed and optimized machine learning models** to predict user preferences across multilingual chatbot dialogues.
- **Processed multilingual datasets with NLP techniques,** using TF-IDF and BERT for feature extraction and reducing position and verbosity biases in preference prediction.
- **Trained and evaluated XGBoost and LightGBM models** through cross-validation and hyperparameter tuning.
- **Improved model reliability** by analyzing bias patterns and refining ensemble-based preference prediction.

Honors & Awards

Grand Prize, Tsinghua University 42nd "Challenge Cup" Apr. 2024
Rescue-vehicle research and design for low-visibility search-and-rescue scenarios

- Led research on a rescue vehicle incorporating shortest-path algorithms and image recognition technology to enhance navigation accuracy.
- Contributed exterior design that balanced functionality, usability, and visual identity for emergency scenarios.

Automotive Design Excellence Award, Popular Choice Award, Top 30 Designers Feb. 2022
7th SAIC-GM Innovative Communication Campus Garage (ICCG) Design Competition