

Sirui Tao

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EDUCATION

2019 - 2023

University of California, San Diego

B.S. Data Science & B.S. Probability and Statistics, Minor in Economics

- 3.94 Major GPA | 3.82 Overall GPA

HONORS & AWARDS

2019 - 2022

Provost Honor, Warren College, UCSD

2021 -

Data Science Student Representative, HDSI, UCSD

2020 - 2021

HDSI Research Scholarship, HDSI, UCSD

20 Spr, 22 Win

TRELS Research Scholarship, AEP, UCSD

PUBLICATION

2021

*Bear, D., *Wang, E., *Mrowca, D., *Binder, F., Tung, H.-Y., RT, P, Holdaway, C., **Tao, S.**, Smith, K., Sun, F.-Y., Li, F.-F., Kanwisher, N., Tenenbaum, J., **Yamins, D., and **Fan, J. (2021). Physion: Evaluating physical prediction from vision in humans and machines. In Advances in Neural Information Processing Systems (NeurIPS Datasets & Benchmarks Track) 2021.

ACADEMIC EXPERIENCE

2021 -

UCSD, CogTools Lab

UCSD, La Jolla, San Diego, CA, USA

Assistant Researcher

Jan 2021 - Present

- Receive funding from HDSI and TRELS to participate in research on 3D data under PI Judith Fan's mentorship to study intuitive physics, investigating visual perception in humans and machines, primarily working on the data analysis and 3D stimulus designs non-rigid physical interactions for Physion.

2020

UCSD, Academic Enrichment Program

UCSD, La Jolla, San Diego, CA, USA

Independent Researcher

Mar 2020 - Aug 2020

- Receive grants to study the potential economic benefit and risks of adopting the "Farm-Institution" model for campus food supply at UCSD through a qualitative and quantitative assessment of UC San Diego's current situation, encouraging UCSD to make an effort to transform into a sustainable public institution.

WORKING EXPERIENCE

- 2022 **Tesla** Fremont, California, USA
Data Scientist Intern June 2022 - Sep 2022
- Work on Statistical Process Control Tools and Data-centric Visual Inspection MLOps System in Global Battery Manufacturing Team.
- 2021 **Bühler Group** Wuxi, Jiangsu, China
Data Scientist Intern at Innovation Center July 2021 - Sep 2021
- Research and initiate the effort to build an Image-Labeling MLOps feature in our B2B product prototype to optimize the model adaptability for defects detection for a 25-billion USD customer segment;
 - Prototype an MVP using Figma & Angular within a cross-functional innovation team;
 - Director of Innovation praised the initiative and requested a showcase of this proposal to the whole division;
 - Refine and participate in reviewing new analytics features on our IoT platforms to help our customers with their digital twin adaptation journey with better business insight extraction with descriptive & predictive modeling.
- 2021 **J.D. Power** Shanghai, China
Analyst Intern June 2021 - July 2021
- Optimize the workflow of the quality analytics team by refining the analytics processes via automating data processing and report pipelines, saving more than 200 working hours/ year for the team;
 - Provide detailed documentation on Git to ensure continuous usage for teammates from non-technical backgrounds.
- 2020 **Bosch** Wuxi, Jiangsu, China
Data Analyst Intern at MAS (Manufacturing Analytics Solution) Aug 2020 - Nov 2020
- Provide effective data analysis and visualization on Tableau for continuous monitoring of data and parameter tuning to gain valuable analytic insights based on Bosch Industry 4.0 transformation roadmap;
 - Cutting down manual inspection and analysis time by providing crucial insight on key bottlenecks and reducing critical bottlenecks diagnosing time by 80% in manufacturing lines with insights on potential optimal parameters;
 - Present the dashboards to the Director of Manufacturing Analytics Solution Division at the monthly briefing.

OTHER SKILLS

- Software: Python, R, SQL, Web (Angular), D3.js, PyTorch, DevOps, Agile
- Data Science: Scalable Analytics, Data Visualization, MLOps, Recommender system, Data Mining
- Mathematics: Probabilistic reasoning, Descriptive & Inferential statistics, Stochastic process