RUN **CHEN**

Redmond, WA 98052 · (765) 269-6609 · BigRunTheory@Gmail.com
Feel free to check my personal website: https://bigruntheory.github.io/

SKILLS

- Python, PySpark, C
- (Machine Learning) System Design
- Agentic AI, Language Models
- Statistics, Data Analysis, Data Structure and Algorithms
- Decision Science, Math Programming
- Cloud Service, Ads, Online Business

CERTIFICATES

- Microsoft Certified: Azure AI Fundamentals
- Microsoft Certified: Azure Data Fundamentals

EXPERIENCE

DATA & APPLIED SCIENTIST

Microsoft, Redmond, WA | October 2022 – Present

Drive intelligent solutions for demand forecasting and capacity planning across Microsoft Azure, contributing to reduced CAPEX and enhanced global cloud service delivery through data science, machine learning, and AI.

- Designed and deployed Standard Deviation of Forecast Error (SDFE) solutions for Azure resources, integrating Agentic AI to improve model explainability.
- Built and implemented inventory buffer optimization models to ensure efficient resource allocation across global data centers.
- Developed optimized rack planning algorithms for Azure data centers, accounting for constraints such as power, component, and budget.

MACHINE LEARNING ENGINEER

PointsBet, Denver, CO | September 2021 – October 2022

- Designed and deployed cloud-based recommender systems using collaborative filtering to personalize user feed pages, significantly increasing customer engagement across multiple sports.
- Built and implemented real-time anomaly detection systems to identify fraudulent transactions and promotional abuse, with automated alerting for operational response.

RESEARCH ENGINEER INTERN

Yahoo!, Sunnyvale, CA | May 2018 – August 2018

Developed a targeted advertising recommender system using factorization machine models, trained on highly sparse user segmentation data to improve ad relevance and campaign efficiency.

STATISTICAL GENETICS & DATA SCIENTIST INTERN

Monsanto, Chesterfield, MO | May 2017 – August 2017

Created an optimization-based solution to intelligently assign donors for improved trait integration in breeding pipelines, resulting in increased genetic gain. *Awarded the **Monsanto Contribution Prize** for innovative impact on R&D operations.*

EDUCATION

PH.D. – INDUSTRIAL ENGINEERING

Purdue University, West Lafayette, IN, USA | December 2020

My research focuses on developing fundamental distributed algorithms for solving large-scale optimization problems with applications to energy systems and machine learning models. **My Google Scholar Profile**

B.S. - PHYSICS

University of Science and Technology of China, Hefei, Anhui, China | June 2011