

SHIRUI CHEN

github.com/chinsengi

6084710966

schen572@wisc.edu

EDUCATION

University of Wisconsin, Madison, Bachelor of Science Candidate, May 2020

- Computer sciences major & math major
- Dean's list; GPA 4.0; Credits: 75

RESEARCH EXPERIENCE

Undergraduate Researcher

Prof. Vikas Singh, UW Madison

- Design novel neural network structure that effectively learn medical image feature under Riemannian geometry
- Provide a better understanding of medical images for brain and cancer research

Madison, Wisconsin

July 2018- present

Computational Biology Researcher

Prof. Hong Li, Shanghai Institutes for Biological Sciences

Shanghai, China

June 2016 - July 2017

- Published a journal article on *BioMed International*
- Wrote R script to explore the differences between gene expression datasets from different patient groups
- Used statistical methods like multivariate analysis of variance (ANOVA) to evaluate the impact of different factor

Urban Traffic Modeling

Personal Research Project

Shanghai, China

January 2017 - June 2017

- Modeled urban traffic using mixture of multivariate gaussian model and automata theory
- Explored agent-based programming language like NetLogo
- Used Gibbs sampling to generate data from mixture of distribution

COMPETITIONS AND AWARDS

Mathematical Contest in Modeling (MCM) (March 2018)

Madison, Wisconsin

March 2018

- Meritorious Winner (Top 10% out of 10670 teams)
- Developed combined model of multivariate linear regression and differential equation model to assess and predict the usage of renewable energy
- Wrote R script to clean data and implement the model.

ACM International Collegiate Programming Contest (ICPC)

Verona, Wisconsin

October 2017

- Ranked 22 out of 207 teams in NCNA
- Wrote C++ program to solve algorithmic problem related to dynamic programming, number theory, graph theory and computational geometry, etc

Brain Bee China National Neuroscience Championship (May 2017)

Shanghai, China

May 2017

- First Prize winner (Ranked 4th among all the participants)

SKILLS

Technical Skills R, Java, C++, Python, Linux, LaTex, MySQL

Web & Design Adobe Photoshop, Adobe Illustrator