ZHANG, Yun

Email : yzhang98@connect.hku.hk
Mobile : +852 5483 1981

EDUCATION

The University of Hong Kong — Hong Kong
Master of Statistics — *Sep. 2020 – Jun. 2021*
Thesis Topic: *On Sequential Monte Carlo Methods for Parameter Estimation in State-Space Models*
Advisor: Professor Wentao Li

Southern University of Science and Technology — Shenzhen
Bachelor of Statistics; GPA: 3.75/4.00 — *Sep. 2016 – Jun. 2020*
Thesis Topic: *Hypothesis Testing in the Proportional Inverse Gaussian Distribution*
Advisor: Professor Guoliang Tian

Hong Kong University of Science and Technology — Hong Kong
Visiting Student; CGA: 3.77/4.3 — *Sep. 2019 – Dec. 2019*

EXPERIENCE

Southern University of Science and Technology — Shenzhen

- Teaching Assistant - Nonparametric Statistics — *Feb. 2020 - Aug. 2020*
  Prepare suggested solutions, and grade students' assignments and exams.

- Research Assistant - Object Detection and Ethology Data Analysis — *Jul. 2019 - Aug. 2019*
  Use YOLO (You Only Look Once) neural network to detect objects from experimental videos, and analyze extracted coordinates data by statistical methods.

- Teaching Assistant - Probability and Mathematical Statistics — *Feb. 2019 - Jun. 2019*
  Prepare suggested solutions and grade students' assignments weekly.

- Student Assistant - Java — *Mar. 2018 - Jul. 2018*
  Meet scheduled lab classes and answer questions, clarify materials. Prepare suggested solutions and auto-checking scripts, and grade assignments, tests, and exams.

PROJECTS

- **Parameter Estimation by LM-SMC algorithm**: Extend application field of Likelihood-based Mixture Sequential Monte Carlo (LM-SMC) algorithm, a kind of particle filter, from filtering problem to parameter estimation for state space models (Master Thesis)
- **Hypothesis Tests of PIG Distribution**: Construct several hypothesis tests for Proportional Inverse Gaussian distribution, and EM/MM algorithms for its inference. (Bachelor Thesis)
- **Automobile Price Research**: Study the automobile price data through a complete statistical procedure, including model building, assessment, variable selection and model choice. (Element of Statistical Learning)
- **Research on LPPL**: Investigate historical Shanghai composite index data and predict when financial bubbles get crushed, using LPPL model and LM algorithm. (Computational Finance)
- **Nonparametric Stat Manual**: Online manual of nonparametric statistical methods, developed with docsify.
- **Blog**: A self blog where technology articles and personal ideas are shared.

SKILLS

- **Language**: TOEFL-ibt 94, CET-6 533
- **Programming Languages**: Python, R, Matlab, Julia, Scrapy, Java
- **Technologies**: LaTeX, Microsoft Office, Photoshop, Wechat Subscription Account

AWARDS & CERTIFICATES

- SUSTech Outstanding Dissertation for Bachelor's Degree, May 2020
- HKU Entrance Scholarship for the Master of Statistics, April 2020
- SUSTech Outstanding Student Scholarship (Grade 2), Sep 2019
- SUSTech Outstanding Student Scholarship (Grade 3), Sep 2018
- SUSTech Outstanding Student Scholarship (Grade 3), Sep 2017