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EDUCATION

PhD student | *Imaging Science*

Washington University in St. Louis

Aug. 2022 – Expected May 2026

St. Louis, MO, U.S.A

Research Assistant

Washington University in St. Louis

Advisor: Prof. Ulugbek Kamilov, Prof. Monica Shokeen

Aug. 2021 – Aug 2022

St. Louis, MO, U.S.A

Master of Science | *Computer Science*

Washington University in St. Louis

Overall GPA: 3.98/4.0

Aug. 2019 – May 2021

St. Louis, MO, U.S.A

Bachelor of Economics | *Financial Statistics and Risk Management*

Southwestern University of Finance and Economics

Overall GPA: 87/100

Sep. 2015 – Jul 2019

Sichuan, P.R.China

AWARDS

WUSTL Dean's Select Fellowship

Washington University in St. Louis

2021

St. Louis, MO, U.S.A

CONFERENCES AND PRESENTATIONS

Segmentation and Classification of Bones of Mice Basing on Micro CT Data

Imaging Sciences Pathway(ISP) Retreat

Apr 2021

RESEARCHING PROJECTS

Quantitative pipeline on Micro PET-CT Data of Mice | *Python, Tensor Flow*

CIG, WUSTL.

August 2021 - Ongoing

- Description – A project seeking to set up a pipeline basing on Micro PET/CT data to evaluate the course of Multiple Myeloma, offering an efficient, constant quantitative tool in preclinical study that is free from bias introduced from manual labeling.

PROJECTS

Detection of Edge of Stones in an Image | *MATLAB, MATLAB App Designer*

<https://github.com/FloraSun9101/EdgeDetection>

June 2020 – July 2020

- Description – A MATLAB application provides an interface through which user could browse an example picture of stones, then the app achieves detecting the edge of stones in the image, label them and return a specific cut of selected stone along with its perimeter and area in pixels. This is implemented using traditional image processing algorithm such as Canny Edge Detection, Watershed algorithm along with Machine Learning algorithm K-Means

Search Engine over PDF Paper Collections | *Python*

Course Project, SWUFE

June 2019 – June 2019

Sichuan, P.R.China

- Description – A search engine based on more than 1000 PDF papers that support searching among titles, authors and full text. PDF is first converted into text using PDFMiner, then text split is implemented with the help of Regex and a library called Whoosh is used to help to build the search engine.

- Techs: Python, PDFMiner, Whoosh, Regex

Visualization of Evolution of Stack Overflow| D3.js

Dec 2020 – Jan 2021

Group Course Project, WUSTL: <https://washuvis.github.io/stackoverflow/>

St. Louis, MO

- Description – A website visualized the aggregated users and posts' data using D3.js to describe the Evolution of Stack Overflow. My work includes: collect all the post data of Stack Overflow, aggregate the data for visualization. Implement the force chart and the edge bundling chart for the tag part.
- Techs: Python, D3.js

RELATED COURSES

Undergraduate Courses

Sep 2015 – Jun 2019

Southwestern University of Finance and Economics

Sichuan, P.R.China

- Applied Time Series Analysis
- Stochastic Process
- Econometrics
- Information Theory
- Game Theory Application
- Mathematical Modeling and Experiments

Graduate Courses

Aug 2019 – Ongoing

Washington University in St. Louis

St. Louis, MO

- Intro to Machine Learning
- Machine Learning
- Intro to visualization
- Large-Scale Optimization for Data Science
- Bayesian Optimization
- Bayesian Method in Machine Learning

TEACHING EXPERIENCE

T.A. of Machine Learning

Spring 2021

Washington University in St. Louis

St. Louis, MO

T.A. of Database Management System

Spring 2021

Washington University in St. Louis

St. Louis, MO

T.A. of Intro to Machine Learning

Fall 2020, Spring 2020, Spring 2021

Washington University in St. Louis

St. Louis, MO

T.A. of Data Structure and Algorithm

Spring 2020

Washington University in St. Louis

St. Louis, MO

SKILLS

Languages: Mandarin (Native), English (TOEFL 102), Spanish (Beginner)

Programming: Python, MATLAB, Java, R, JavaScript(D3.js)

Database: SQL, MongoDB

Editor: Emacs, Eclipse, PyCharm, MATLAB

Document Creation: LaTeX, Markdown