Daizong (Colin) Wu

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EDUCATION

University of Southern California Los Angeles, CA
Master of Science in Computer Science January 2022 – December 2023

Purdue University West Lafayette, IN
Bachelor of Science in Computer Science (Focus: Machine Intelligence) September 2019 – May 2021
Bachelor of Science in Agricultural Engineering (Focus: Machine Systems) September 2018 – May 2021

- Overall GPA: 3.93/4.00
- Relevant Coursework: Object-Oriented Programming, Programming in C, Data Structures and Algorithms, Systems Programming, Computer Networks, Discrete Mathematics, Software Testing, Analysis of Algorithms, Introduction to Artificial Intelligence, Data Mining and Machine Learning, Relational Database Systems
- Awards and Honors:
  - John R Brubaker Scholarships; Jill and Michael Gough Scholarships; Bill Carteaux Scholarships April 2020
  - Bart and Karen Nelson Scholarships; Matthew and Lesa Reynolds Scholarships April 2019

China Agricultural University Beijing, China
Bachelor of Engineering in Agricultural Engineering September 2016 – May 2021

- Overall GPA: 3.7/4.0

WORK EXPERIENCE

Software Engineer Intern Beijing, China
NetEase Youdao Information Technology (Beijing) Co., Ltd. September 2021 – December 2021

- Developed and maintained Java web applications using the Spring Boot framework
  - Developed the "Smart Dictation" feature for Youdao Panda tablets
  - Modified database structures and back-end API's to support subject selection, "Text to Speech", and entry inputs in a management system for test questions
- Produced reports regarding market-related indices such as daily active users (DAU) and user retentions using the Apache Hive

RESEARCH EXPERIENCE

Dynamic Lambda: a more efficient distributed computing framework
Reliable and Secure Systems Lab, Purdue University, Advisor: Dr. Pedro Fonseca May 2020 – January 2021

- Implemented MapReduce in Python, measured and analyzed memory consumption of mappers and reducers in runtime
- Studied the memory management mechanism used by the Apache Hadoop
  - Examined source code of Hadoop containers YARN employed to organize resource and job scheduling
  - Ran experiments to visualize containers' memory utilization, and evaluated the pros and cons of Hadoop containers
  - Discovered the current resource management of Hadoop is static and can be improved
- Offered a more flexible system design by featuring the strategy of input division and the use of scheduler

PROJECTS

Vehicle Monitoring System – Purdue ABE Capstone Project August 2020 – April 2021

- Collected engine speed, temperature, and GPS data from on-board sensors using corresponding Python packages
- Utilized shell script to store data collected from sensors as txt files locally and send data to the Google Cloud regularly via ssh
- Connected to the Google Cloud to retrieve location information and then computed the optimal work site to go to for the driver

Smart Apartment – CS 348 'Information Systems' August 2020 – December 2020

- Applied SQL Alchemy to connect to the online MySQL database and execute queries in a secure and efficient manner
- Designed the webpage using Python Flask and HTML where users can manage the residents' information
- Built MySQL databases and deployed the project on the Google Cloud Platform

PUBLICATION

- **Wu, Daizong**. and Liu, Yuying. "Motion of an Object in Gravity Tunnels." PHYSICS AND ENGINEERING, Vol. 01, 2020, PP 73-79 (in Chinese).
  Retrieved from https://www.cnki.net/KCMS/detail/detail.aspx?filename=GKWL202001013&dbname=cjfdtotal

PROFESSIONAL SKILLS

- Proficient in Java and object-oriented programming; Proficient in using the Spring frameworks to develop web applications
- Intermediate in relational databases, such as MySQL, and ORM frameworks, such as Hibernate and MyBatis
- Intermediate in front-end development using HTML, CSS, and JavaScript
- Intermediate in big-data analytics infrastructures, such as Apache Hive and Hadoop
- Intermediate in programming on Linux machines and deploying projects on Linux servers
- Beginner in data processing and data visualizing with Python