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

EXPERIENCE

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

- Developed new features for the back end (Spring Boot applications) of Youdao Panda tablets
  - Designed and implemented APIs for the "Smart Dictation" feature which helps users to memorize new words in English
  - Created corresponding MySQL databases and connected to the back-end application via MyBatis
- Maintained the back end (Spring Boot applications) of an internal management system for test questions
  - Coded additional Hibernate interfaces and reengineered MySQL databases to support subject selection
  - Invoked APIs from other back-end applications to retrieve data in the format of JSON and parse JSON strings
- Conducted big data analysis using the Apache Hive and Spark
  - Computed market-related indices such as daily active users (DAU) and user retentions
  - Produced reports to represent daily computed data

RESEARCH

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
- Offered a more flexible system design by featuring the strategy of input division and the use of scheduler

PROJECTS

MyBank (ongoing) January 2022 – Present

- Built the back-end application using the Spring Boot framework and connected to MySQL databases by Hibernate
  - Allowed users to create accounts in the system and transfer virtual money between accounts
  - Enabled managers to lock potential compromised accounts and oversee all transactions across the system
- Delivering the front end written in React.js

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

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

SKILLS

Programming	Java (Spring, Spring Boot), Python (NumPy, SciPy, Matplotlib), C, JavaScript (jQuery, Node.js), HTML, CSS, Shell
Database	MySQL, Oracle, PostgreSQL (PostGIS), Hibernate, MyBatis, MongoDB, Redis
Big Data	Apache Hadoop, Hive, Spark
Others	Linux, Git, Nginx, GCP