

Ziyuan(Clara) Wei

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EDUCATION

University of Illinois, Urbana - Champaign

Champaign, IL

B.S. in Computer Science and Statistics, Minor: Psychology GPA: 3.56/4.0

Sep 2018 - Dec 2021(Expected)

Relevant Courses: Algs & Models of Comp, Applied Machine Learning(IP), Computer Architecture, Data Mining, Data Structures, Database Systems, Software Design Studio, System Programming(IP), Text Information Systems(IP), User Interface Design(IP), Applied Linear Algebra, Discrete Structures, Fundamental Mathematics, Methods of Applied Statistics, Numerical Methods, Statistics and Probability I - II, Cognitive Science

Activities: CS196 Freshman Honors TA/PM, Rewriting the Code fellow, Campus Band

Nanjing Foreign Languages School

Sep 2015 - June 2018

Awards: Merit Student (top 10%), Top 2%/Finalist Award in American High School Mathematics Modeling Competition(HiMCM),

Top 2.5% of AMC10, Score 7 in AIME, Global Top 25% in Euclid Mathematics Contest, Distinct AP Scholar

SAT: 1510 - 730 (Reading) 780 (Math) TOEFL: 116 - 30(Reading) 29(Listening) 27(Speaking) 30(Writing)

EXPERIENCE

Software Engineering Intern, Oracle Corp. Redwood City, California

May 2020 - Present

- Worked on the Oracle Cloud PSR (Performance, Scalability and Reliability) Engineering Team
- Explored accuracy of using Helidon Timer for reporting latency-related metrics and alerting
- Created an automated test service instrumented with timer, simulated user requests sent with parameters to control service response time, and visualized actual versus reported statistics using Python libraries including requests, Numpy, Matplotlib
- Investigated opportunities for further refinements/improvements to existing algorithm implementation and made modifications to existing algorithm using Java
- Logged a Helidon Enhancement request to the Helidon team (<https://github.com/oracle/helidon/issues/2191>), proposing support of Sliding Window Reservoir Algorithm in addition to Exponential Decaying Reservoir(EDR) Algorithm in timer histogram
- Imported data into InfluxDB for time-series visualization in Grafana, and parsed user requests using JMeter

Undergraduate Research Assistant, FORWARD Lab, Department of Computer Science, UIUC

August 2020 - Present

- Built a simple search engine that returns a ranked list of document relevance, using Flask and Whoosh libraries
- Filtered out definitions of keywords from corpus of texts using POS-tagging, with NLP libraries nltk and spacy

Project Manager Director, CS 196, Champaign, Illinois

January 2020 - Present

- Oversaw 7 semester-long projects with GitHub project management tools including scrum boards, and held biweekly meetings and relevant technical workshops on git version control and software development life-cycles
- Planned agile-based management for upcoming semester, and created plans and dashboards for more than 20 teams
- Graded and provided feedback for both projects and project managers

Undergraduate Research Assistant, EPIC Lab, Department of Psychology, UIUC

August 2019 - May 2020

- Built a platform for collecting data responses to analyze both genetic and environmental factors on twins
- Fixed layout issues with website layout, and displayed responses in categories using PHP and MySQL
- Connected and deployed cPanel with GitHub to ensure asynchronous code update

Software Development Intern, RMDS Lab, Pasadena, Los Angeles

May 2019 - August 2019

- Brought CEO's vision of a collaborative workspace to life by launching version 0.1x of <https://grmds.org>
- Used Drupal 8 to create and deploy a platform for data scientists to share data, workflow, insights and projects
- Led backend and frontend development of the Moodle learning site, and implemented changes in course page with CSS
- Migrated and upgraded Drupal core settings

Technical Project Manager, CS 196, Champaign, Illinois

Jan 2019 - Dec 2019

- Provided mentorship and guidance for two semester-long projects in web development and game design, respectively using React, Firebase, Microsoft Azure and GameMaker Studio

PROJECTS

Private Tracking for COVID, CS411 Final Project

July - August 2020

- Designed backend user database models and REST API endpoints using Pyramid and MariaDB

Infection Analysis, RMDS Lab

March 2020

- Extracted and visualized data from provincial and city datasets in China using PCA analysis, with seaborn and sklearn
- Cleaned and merged data from hospital dataset, and classified with decision-tree algorithm in Python
- Created workflows for the simulation and time-series analysis of infection rate in Los Angeles

Budget Savings Mobile App, Capital One SWE Summit

August 2020

- Researched on image-classification and text-recognition with Google Vision API and Tesseract OCR
- Implemented Camera API for budget scanning and connected with UI

NPS Web Application

June 2019

- Provided tools to assist users in state and designation filtering, name and keyword search with JavaScript
- Listed details about specific visitor centers and displayed alerts, articles, etc. about a selected destination

Housing Values in Chicago, ASDA Project

October 2019

- Preprocessed datasets of Amazon reviews in Python into personality types, with sent2vec and word embedding
- Classified and trained the preprocessed data using KNN algorithms, written in C++

Personality Analysis, CS126 Final Project

April - May 2019

- Scraped online housing data with Pandas and BeautifulSoup, and visualized change in annual prices using Matplotlib

SPECIALIZED SKILLS

Programming Languages: Python, Java, C/C++, SQL, R, PHP

Tools: Flask, Django, React, MySQL, MongoDB, Docker, Drupal, WordPress, Vim, Visual Studio, Python Libraries (Numpy, Scipy, Matplotlib, Pandas, Sklearn, Seaborn etc.)