Haihan Gao
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Education

University of Michigan, Ann Arbor, MI   Class of 2024
College of Literature, Science, and the Arts,
Bachelor of Science Major in **Computer Science** and Minor in **Mathematics**
- Cumulative GPA: 3.6/4.00
- Margaret S. Huntington Prize in Actuarial Outreach

Projects

Projects For Class Web Systems   Jan. 2022 – May 2022
- Developed an Instagram-like web application using React for front-end, Flask for back-end, and SQLite for database, supporting features like user sign-in, posts, comments, infinitely scroll and double-click
- Built a multi-worker and fault-tolerant MapReduce server in Python which can process user-submitted tasks using the threads and sockets
- Implemented a search engine from scratch based on text segmentation, MapReduce indexing and tf-idf scores

Experience

University of Michigan Transportation Research Institute (UMTRI)   Nov 2022 – May 2023
Research Assistant, Ann Arbor, MI
- Transformed raw body scans into processed grayscales using AnthroScan and landmarked over 400 3D external body shape grayscales using MeshLab to collect data to build body models for Female Body Armor
- Defined the window for unprocessed videos and completed video coding of children subjects for estimate their maximum strength

Sports Media, Inc   May 2022 – August 2022
Web Dev Intern, remote
- Enhanced Wordpress on-site SEO using Wordpress plug-in Yoast SEO and grew the sites' organic audience and rankings by 5 on google search by switching ad placement and keyword use
- Built a chatbot for ZooMedia using ConversioBot to provide automatic customer support

MWolves (Michigan Wolves) Basketball Team   August 2021 – December 2022
Assistant Coach and Data Analyst, Ann Arbor, MI
- Led the basketball team by creating training schedules, supervising the training process twice a week and reviewing the training videos to generate analytics reports on each player's performance
- Programmed Matlab applications to record data, including Diff, field goal rate, turnovers, of 20 athletes based on shooting locations and scores per game, and produced a visualization of the shooting map
- Analyzed data with Excel to devise drills to optimize players' performance, improving FTA(Free Throw Rate) from 34% to 60% and Points/Possession from 0.67 to 0.98

GDL Clothing   May 2021 – August 2021
TikTok Content Manager, Hangzhou, China
- Designed an onsite database using SQL to automate data storing, and analyzed backend data, including engagement rate, to see beyond the numbers and understand how users interact with ads and livestream products
- Delivered data support to identify trendy contents from business strategic scope to drive traffic and boost sales
- Brainstormed, produced and published creative content daily including script writing and videos editing using CapCut Video Editor

Undergraduate Research Opportunity Program (UROP)   Dec. 2020 – April 2021
Researcher, Ann Arbor, MI
- Interpreted and transcribed 30 letters on the Egytian's dealing process of fragmented papyrus in 1910s and coordinated with researchers working on the papyrus collection to organize the historical archival letters chronologically

Software Skills

C++, Python, R, Java, JavaScript, HTML, Mathematica, Swift, C#, Photoshop, Microsoft Word, PowerPoint, Excel