

Jordan Wells

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EDUCATION

University of Texas at Austin

Bachelor of Science in Chemical Engineering (GPA: 3.94)

Certificate in Elements of Computing

August 2019 – May 2023

Austin, Texas

EXPERIENCE

Software Developer Associate

D.E. Shaw Research

September 2023 – Present

New York, NY

- Engineered a robust data pipeline using Airbyte and DBT to extract, load, and transform 150K+ daily rows and 100M+ historical rows of simulation and experimental data between MySQL and PostgreSQL, improving data accessibility and processing efficiency
- Developed a distributed task engine leveraging Redis and Python, enabling parallel execution of dozens of computationally expensive workflows launched from a GUI
- Built and deployed a RESTful API server with Python and FastAPI to handle Kerberos and JWT-based authentication, securely serve and upload files with S3, interface with PostgreSQL databases, and trigger workflows in the task engine
- Optimized and maintained chemical libraries containing 40B+ small molecules, enhancing the performance and usability of computational drug discovery tools
- Led and streamlined onboarding for drug discovery tools by designing tutorials and providing hands-on support to computational chemists

Institute for Foundations of Machine Learning Research Assistant

University of Texas at Austin

June 2020 – August 2023

Austin, TX

- Built scalable data pipelines in Python to process and clean 2M+ experimental protein mutation data points, enabling efficient training and validation of machine learning models
- Expanded dataset volume by 60,000% through innovative augmentation techniques leveraging pandas and thermodynamic principles, significantly improving AI model accuracy
- Utilized high-performance computing centers and Singularity to process data in a multi-threaded manner
- Designed antibody/SARS-CoV-2 interfaces computationally with Rosetta to improve antibody affinity

Back-end Software Engineer

AUXI Solutions Startup

Aug. 2022 – Aug. 2023

Austin, TX

- Architected and deployed a scalable mobile app database using Firebase and Google Cloud Functions
- Streamlined data management workflows by developing internal tools with Flask and Next.js, reducing data entry time for non-technical collaborators
- Collaborated with an international development team to deliver an entertainment-focused iOS application

VI Next Intern

Regeneron Pharmaceuticals

Jun. 2022 – Aug. 2022

Tarrytown, NY

- Led the design and production of recombinant proteins for exploratory development of a novel protein therapeutic
- Analyzed DNA, bacterial, mammalian, and protein samples using a wide variety of biotechnology tools
- Used common cloning workflow tools such as Gibson assembly, PCR, and electrophoresis

Rosetta Commons REU Intern

National Science Foundation, University of Colorado Boulder

May 2021 – Aug. 2021

Boulder, CO

- Explored methods to rapidly test 30K+ small molecules for protein binding using Python and Rosetta
- Contributed 20K+ lines of code to the open source tool suite via Git
- Presented research findings to the Rosetta Developers Conference (RosettaCon)
- Collaborated with computational and experimental researchers to extend tools for their research problems

PROJECTS

Where Should I Eat | *React, Next.js, Yelp API, OpenStreetMap, Docker* August 2022

- Designed and built a web application to help 100+ monthly users discover top-rated restaurants based on user-defined preferences and location
- Integrated the Yelp API to fetch restaurant data and OpenStreetMap for an interactive map display

Vibesition | *React, Next.js, Spotify API* June 2022

- Developed a full-stack web application that generates mood playlists for 100+ monthly users
- Implemented an OAuth authorization flow for users to log-in with Spotify
- Launched the website on ProductHunt, reaching nearly 100 followers

HueWind | *React, Next.js* June 2022

- Developed a web application that generates color palettes for Tailwind CSS
- Designed a responsive single-page application with a streamlined user experience
- Wrote about the front-end and UX development experience and takeaways on Medium, reaching 5K+ readers

TECHNICAL SKILLS

Languages: Python, C++, Java, SQL, JavaScript/TypeScript, HTML/CSS, MATLAB

Frameworks: React, Next.js, Flask, FastAPI, Node.js, Redis/RQ, Tailwind CSS

Developer Tools: Git, Docker, Google Cloud Platform, Singularity

Data Engineering Tools: Airbyte, DBT, Pandas, Dask, Grafana, Splunk

Databases: PostgreSQL, MySQL, Redis, MongoDB, Firebase, S3