ZACHARY HINZ

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Education

Pomona College   Claremont, CA
- Bachelor of Arts, Majors in Mathematics and Computer Science, Minor in East Asian Studies (GPA: 3.85 / 4.0)   Dec 2024

Skills

Programming Languages: Python (Pandas, NumPy), Java, SQL, R, MATLAB, Javascript (React, Typescript) C/C++, HTML, CSS
Development Tools: Git/Github, Azure, Scrum/Agile Development Methodologies, REST APIs, GraphQL
Foreign Languages: Mandarin Chinese (conversational, B2)

Work Experience

Software Engineer Intern   New York, NY
Estée Lauder Companies   June 2023 – August 2023
- **Reduced data pull time for developers by 60% by creating new realtime data pipelines** within data lake ingestion framework using Apache Spark/Python. Pipelines both transformed unstructured, raw data into useable, structured data within company wide cloud-based data lake, while also more accurately capturing and storing changes that occurred within the data lake.
- **Reduced data dashboard and visualization build time by 27**% by adding new method to Estee Lauder internal data query tool to be used in data analytics and visualization across the companies. Method is used to quickly understand historical changes to data, based on the attributes developer is most interested in for queries on datasets of up to 3 million entries.
- Created new system to track row level updates across relational databases, **reduced implemented overhead by 12%**
- Exposed to all parts of data engineering within the ELC Data team, **including collecting, ingesting, and validating data.**
- **Tech Stack**: Databricks, Apache Spark, PostgreSQL, Python

Research Assistant and Data Analyst   Remote
Pomona College, The Chang Lab   June 2023 – July 2023
- **Identified key biodiversity impacts** of 22 different natural climate change solutions (ex: forest restoration, wetlands protection, etc) **by analyzing structured dataset covering 260,000+** studies related to natural climate solutions.
- **Modelled biodiversity impacts using 5 linear models** built with NumPy and Pandas across 20 different mammal families.
- Prepared and presented report to key stakeholders, including the Nature Conservancy, outlining climate change mitigation strategies tied with increased biodiversity alongside **data visualizations generated with Matplotlib and Seaborn**. Report and data will guide implementation and advocacy for natural climate change solutions.
- **Tech Stack**: Python, (NumPy, Pandas, Matplotlib, Seaborn), mySQL, R

Data Analyst Intern   Remote
Pomona College, Career Development Office (CDO)   May 2022 – Aug 2022
- Assessed CDO's effectiveness at serving the student body by **reviewing, cleaning, and analyzing two raw 6,000+ entry datasets** on student internships and job placements using Python and R. Effectiveness was measured as post graduation job and fellowship attainment rates for students of different demographic groups.
- **Reduced time spent on manual data cleaning by 150%** by spearheading automation of data collection, formatting, and cleaning using several Python webscrapers within Excel

Summer Associate   New York, NY
Insurtech NY   May 2022 – Aug 2022
- Identified 55 emerging tech startups within the insurance sector as potential investment opportunities for Insurtech NY.
- Prepared report summarizing general market trends within the Insurtech space in 2020-2022.

Extracurricular and Leadership Experience

Mathematics and Computer Science Teaching Assistant   Claremont, CA
Pomona College, Department of Mathematics   Jan 2023 – Present
- Helped students better understand class material in linear algebra and computer systems by hosting three weekly study sessions.

Resident Advisor   Claremont, CA
Pomona College, Office of Housing and Residence Life   Aug 2022 – Present
- Connected residents to campus resources, settled disputes, handled emergencies and maintained Pomona's code of conduct and safety standards within residence halls by serving as first point of contact for 98 total students across all class years.
- Promoted community development by planning and leading 10 events for residence hall members throughout the academic year.

Eagle Scout   Los Altos, CA
Boy Scouts of America   June 2012 - Oct 2016
- Awarded "Order of the Arrow" for demonstration of seniority and leadership; Served as Senior Patrol Leader
- As part of Eagle Project, constructed set of small wooden bleachers and bench for local preschool to be used for storytime. **Responsible for managing costs, purchasing materials, and leading construction** team of 7 fellow scouts over 10 workdays