

Jonathan Hu

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EDUCATION

University of Colorado Boulder

Bachelor of Science in Applied Computer Science

Boulder, CO

December 2024

Relevant Coursework: Datamining, Data Structures, Computer Systems, Data Science Algorithms, Database Design, Discrete Structures, Algorithms, Information Visualization, Software Development, Principles of Programming

New York University

Bachelor of Science in Applied Psychology

New York, NY

May 2022

Minor in Computer Science

Relevant Coursework: Operating Systems, Computer Systems Orgs, Data Structures, Algorithms

EXPERIENCE

Data Analyst

New York, NY

Advocacy and Community-Based Trauma Studies (ACTS) Lab

September 2021 – February 2023

- Designed Python applications to automate and optimize data recording and spreadsheet management processes, significantly boosting efficiency and accuracy.
- Applied statistical and machine learning models to analyze trauma-related interview data, improving treatment insights.
- Developed data pipelines to preprocess, clean and transform large datasets, ensuring consistency and reliability in analysis.

Data Analyst Intern

New York, NY

Lilo

September 2021 – May 2022

- Designed and implemented user analytics programs, enhancing the quality of insights, and improving user retention by 15%.
- Developed dynamic Tableau dashboards and PowerBI visualizations for leadership, streamlining decision-making processes and enabling data-driven strategies.
- Conducted data analysis to identify trends, behaviors, and user engagement metrics, resulting in targeted strategies that significantly improved user experience and satisfaction.

Graphics Designer and Social Media Manager

Sacramento, CA

PNDA LahiArts

June 2020 – January 2021

- Designed and developed graphics for social media campaigns, significantly improving audience engagement by 40% and promoting company-sponsored event.
- Optimized communication workflows for event planning and graphic design between company executives and performing artists.

SKILLS

Programming Languages:

Python, SQL, C++, C, Java

Data Analysis & Visualization:

Scikit-learn, Numpy, Tableau, Power BI, Excel, Stata, R, Matplotlib, Pandas,

Database Management:

SQL, PostgreSQL, NoSQL, MongoDB

Web Development:

Flask, HTML, CSS, Javascript

Tools & Software:

Git, Microsoft Office, Adobe Photoshop

Methodologies:

Agile, Scrum

PROJECTS

Python Code Optimizer

January 2025

- Developed a python optimizer that identifies and refactors inefficiencies in Python code, such as replacing manual loops with NumPy vectorized operations and flattening nested loops using `itertools.product` to improve performance and readability.
- The optimizer automatically generates an optimized version of the input script, injects necessary imports, and provides an HTML report summarizing the transformations and profiling results.

Court Finder: Basketball Court Review Website

December 2024

- Designed and implemented a SQL database to store and manage all entities within the website, enabling efficient data retrieval for court reviews, user information, and court features.
- Structured the database to support key website functionalities, such as user-generated content, rating systems, and court details, enhancing the user experience with quick access to relevant court information.
- Worked closely with team members using the MERN stack, contributing to database integration with the backend and frontend to ensure correct and efficient queries were utilized for data retrieval.

Customer Insights with KMeans Clustering and Machine Learning

November 2024

- Developed a comprehensive customer segmentation model using KMeans clustering and Random Forest analysis to predict purchase likelihood based on age, gender, item category, and purchasing behavior.
- Engineered advanced features, including Customer Lifetime Value and seasonality scores, to enhance predictive accuracy and provide actionable insights into customer buying patterns.