Zach Norman

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WORK EXPERIENCE

Vanguard, Malvern, PA — Starting May 2023
Application Engineer

Orita.ai, Remote — February 2022 – November 2022
Contracted Developer • Python, Django, HTML, JavaScript, Svelte

- Created a Python program to generate a PDF of a business analytics report given a JSON file.
- Implemented front-end design for user login, data upload, and e-commerce account connection for companies to easily access and upload their data for analysis.

Baltimore Orioles, Baltimore, MD — January – September 2022
Baseball Systems Developer Co-op • Python, JavaScript, pandas, Django, React

- Developed an amateur baseball player dashboard page containing data on draft-eligible players, including implementing data retrieval and aggregation, and front-end interface with various filtering options.
- Wrote data processes and AWS Lambda functions to aggregate or correct data from games and update database tables
- Added edit features to game report audit pages, including the ability to add, delete, or reorder rows of data, and clear data columns, improving ability for coaches and analysts to correct and use game data.

PROJECTS

Beat the Book • JavaScript, D3 — February – April 2023

- Pulled NBA bets data from the Odds API, and used D3 to visualize betting data across sportsbooks to help users determine the best books to bet with.

WebGL Image Processor • JavaScript, WebGL — December 2022

- Used WebGL to create an interactive site that allowed for loading an image and applying filters, such as monochrome, sepia, and other types of color filters that involved the use of a kernel to get the color values of surrounding pixels.

Predicting Counter Strike Round Winners • Python, scikit-learn, Jupyter Notebook — November – December 2021

- Used scikit-learn on models such as Naive-Bayes, logistic regression, and k-nearest neighbors to determine features that best predicted the outcome of a Counter Strike round.

Analyzing University Diversity • Python, Matplotlib, Plotly, pandas, scikit-learn, Jupyter Notebook — June 2021

- Used Python libraries to determine if various attributes of a university, such as average cost, location, and whether they offered room and board, could predict racial diversity on a college campus.

SKILLS

Languages: Java, Python, HTML, CSS, JavaScript, TypeScript, SQL, C++, Racket
Frameworks and Libraries: React, Svelte, Django, pandas, Plotly, scikit-learn, GLSL/OpenGL/WebGL, D3
Tools: JetBrains IDEs, Visual Studio Code, Jupyter Notebook, AWS, Figma

EDUCATION

Northeastern University, Boston, MA
Khoury College of Computer Sciences — September 2020 – April 2023
Bachelor of Science degree in Computer Science & Mathematics — GPA: 3.4/4.0

Relevant Coursework: Algorithms and Data, Computer Graphics, Differential Equations, Foundations of Data Science, Graph Theory, Group Theory, Human-Computer Interaction, Information Visualization & Presentation, Linear Algebra, Machine Learning & Data Mining 1, Numerical Analysis, Object-Oriented Design, Statistics & Stochastic Processes,

EXTRACURRICULAR INVOLVEMENT

Generate: Build Studio Software Developer (Website team) — January 2023 – April 2023
Northeastern Electric Racing: Member of Software Solutions team (FinishLine) — September 2022 – April 2023
Northeastern Robotics: Software Developer on VexU team — August 2021 – April 2023