Zach Norman

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Experience

Application Engineer, Vanguard – Malvern, PA   May 2023 - Present
Python, AWS (Lambda, Glue, S3, IAM, Cloudformation), SQL
- Develop AWS Lambda functions to ingest data from internal data lakes, APIs, and third-party platforms, performing transformations and loading data into S3 buckets, internal databases, or external platforms.
- Collaborate with business clients on building and enhancing data pipelines by gathering requirements, translating them into technical specifications, and creating detailed documentation for future reference
- Design data visualizations to monitor and track the success rates of daily business-critical reports to provide insights into common failures and areas for improvement or future development

Contracted Developer, Orita   Feb 2022 - Nov 2022
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

Developer Co-op, Baltimore Orioles – Baltimore, MD   Jan 2022 - Sep 2022
Python, JavaScript, Django, React
- Developed data retrieval, aggregation, and user interface for an amateur baseball player dashboard page that allowed for viewing and filtering data on draft-eligible players
- 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.
- Enhanced multiple AWS Lambda functions responsible for data retrieval, calculation, and upsert to ensure storage of accurate game and player data

Education

Villanova University, MS in Applied Statistics and Data Science   Aug 2023 - Aug 2025

Northeastern University, BS in Computer Science and Mathematics   Sep 2020 - Apr 2023

Projects

Generate Website *GitHub*   Jan - Apr 2023
- Enhanced the website for Generate, a student-led product development organization at Northeastern University, by implementing mobile responsiveness and fixing styling issues to improve user experience across devices.
- Tools Used: React

NBA Betting Visualization *GitHub, Website*   Feb - Apr 2023
- Built interactive D3 visualizations to compare betting odds across multiple sportsbooks for NBA games, leveraging data from The Odds API.
- Tools Used: HTML, D3

Image Processor *GitHub, Website*   Nov - Dec 2022
- Developed a WebGL-based application that allows users to upload images and apply custom kernel-based filters, enabling real-time image processing in the browser.
- Tools Used: HTML, Javascript, WebGL

Technologies

Languages: Python, R, JavaScript/TypeScript, Java, SQL, HTML
Frameworks/Libraries: React, Svelte, Django, pandas, Plotly, scikit-learn, D3, tidyverse
Tools: Git, JetBrains IDEs, Visual Studio Code, Jupyter Notebook, AWS (Glue, Lambda, S3, IAM), Figma