Zach Norman

Malvern, PA | zachnorman02@gmail.com | linkedin.com/in/zachnorman02 | github.com/zachnorman02

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

- Developed a Python program using Django to automate the generation of business analytics reports from JSON data, leveraging CSS and templates for cohesive and professional report design.
- 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 2000+ 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.
- Enchanced multiple AWS Lambda functions responsible for data retrieval, calculation, and upsert to ensure storage of accurate game and player data.

Projects

Generate Website *GitHub*　　　　　　　　　　　　　　　　　　　　　　　Jan 2023 - Apr 2023

- Improved the React-based website for Generate, a student-led product development organization, by implementing mobile responsiveness and resolving styling issues to enhance user experience.

NBA Betting Visualization *GitHub*, *Website*　　　　　　　　　　　　　　　Feb 2023 - Apr 2023

- Built interactive D3 visualizations to compare betting odds across multiple sportsbooks for NBA games, leveraging data from The Odds API.

Image Processor *GitHub*, *Website*　　　　　　　　　　　　　　　　　　　Nov 2022 - 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.

Education

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

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

Technologies

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