Mike Barberry

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GitHub | LinkedIn

Experienced engineer adept at consistently delivering reliable software from ambiguous requirements on tight deadlines using diverse technologies. Accomplished problem-solver with sharp intuition and ability to empathize with stakeholder perspectives.

TECHNICAL SKILLS

Languages: Bash, Go, HTML/CSS, JavaScript, MongoDB QL, Python, SQL
Libraries/Frameworks: Chai, D3, Express.js, Matplotlib, Mocha, Next.js, Node.js, NumPy, Pandas, Plotly, Puppeteer, Pygame, React.js, Scikit-learn, TypeScript, Vue.js
Tools & Platforms: AWS (API Gateway, CloudFormation, CloudFront, ECS, IAM, Lambda, Route53, S3, SES, etc.), Docker, Git, Nginx, Unix/Linux
Management + Design: Azure DevOps, Figma, Jira, Trello, Whimsical

PROFESSIONAL EXPERIENCE

Digital Infuzion (Remote) *Software Engineer* Dec 2022 – Present
Digital Infuzion is a technology company based on NIH contracts.

- **Automated 508 Compliance Tool:** Automated collection and reporting of Section 508 software accessibility compliance alerts from any website within a tight 3-week timeline, saving the company thousands of dollars in paid subscription services.
- **CEIRR Data Search:** Developed a new version of a visually compelling and highly interactive data search page, drawing from a previous implementation, for a private portal where users can search from over one million records in 30+ project categories within rigorous time constraints.
- **Data Visualization - NLP and Scatter Plots:** Architected data visualizations to gain insight into how over 900 NIH funded grants totaling over 800 million dollars relate to one another using Python and natural language processing (NLP), and created a website where stakeholders can easily access and explore these scatter plots, all within a 4-week deadline.
- **Data Visualization - Parallel Coordinates:** Designed and constructed a parallel coordinates chart to elucidate relationships between NIH funded grants totalling approximately one billion dollars and project output, and created a website for stakeholder access and exploration, after processing fragmented data.
- **Flu Hub:** Engineered a new full-stack NIH website within a demanding 4-sprint deadline, delivering a robust and scalable solution designed to provide resources and information, with a potential user base of over 300 million individuals.

Competitive Solutions (Remote) *Software Engineer* April 2019 – Dec 2022
Competitive Solutions is a technology company that produces their own software and develops solutions for various client contracts.

- **Data Sharing with Partner Organization:** Created AWS S3 buckets, Node.js AWS Lambda functions, and AWS IAM permissions to facilitate secure, authorized data sharing with a partner organization.

- **Document Upload:** Designed and developed a solution for admin users to upload and attach documents to regular user data that included building website pages to perform uploads, creating a new MongoDB collection to store document metadata, crafting server side logic to interact with the new collection and upload documents to AWS S3, and implementing additional features to delete documents, edit metadata, and optionally send emails to other qualified admin during the upload process.
- **NanoID:** Implemented stakeholder requirement to display short IDs on the website by researching open source libraries, incorporating the chosen tool, updating the website code to show it, modifying the server side logic to automatically add short IDs for new users, crafting a Node.js script to add short IDs to existing user data, and extending the database to include a new property.

PERSONAL PROJECTS

Cat Facts Multithreaded Python Pygame program about cats |
Go Tasker To do list website made with Go and Vue.js | **MikeBarberry.com** Personal website featuring a 3D animation | **Quote Generator** TV show quote website built with custom elements

EDUCATION

Flatiron School, Software Engineering Bootcamp 2019
University College London, M.A. in Philosophy 2016
Indiana University Bloomington, B.A. in Neuroscience 2015