John Mayou

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WORK EXPERIENCE

Terrier Technologies - Software Engineer
May 2023 - December 2024

- Collaborated in a two-person team to launch a new customer on-site (PA, USA) for our flagship product.
- Reduced product regressions by contributing 800 automated tests, doubling the existing test suite across all projects.
- Led performance improvements and pipeline rewrite for a $100M revenue customer switching sales tax providers.
  - Optimized bulk update: reduced 700k record update time from 36 hours to 20 minutes.
  - Optimized data import: reduced 3M record import time from 1.5 hours to 5 minutes.
- Landed new and retained existing customers by overhauling and significantly expanding unreliable daily scrapers, managing synchronization of 50k records.
  - Reduced incorrect and stale data by 50% through rigorous unit and integration testing.
  - Improved observability and uptime by implementing a custom metrics-based monitoring solution.
- Improved deployment confidence and bug fix response time by developing an MVP API monitoring solution.
- Improved customer satisfaction and resolution times by leading the implementation of bug fixes, feature requests, and stakeholder coordination, working directly with B2B SaaS customers.
- Tech: Ruby on Rails, CoffeeScript, JavaScript, TypeScript, PostgreSQL, RESTful APIs, HTML, CSS

PROJECTS

Personal Markdown Workspace – johnmayou.com

- Launched a full-stack markdown workspace to write, preview, and organize content like LeetCode solutions and resumes.
- Designed an IDE-like interface with syntax highlighting and HTML preview using a custom Markdown-to-HTML compiler.
- Reduced risk of production bugs by developing a comprehensive test suite across frontend (Jest, React Testing Library, Playwright) and backend (Go), ensuring end-to-end system reliability with visual and functional correctness.
- Built a CI/CD pipeline (GitHub Actions, Docker, Terraform) with pre-deploy health checks.
- Implemented real-time usage observability and uptime monitoring with Prometheus and Grafana.
- Tech: Next.js, React.js, TypeScript, Go (Golang), Ruby, REST API, HTML, CSS

Markdown-to-HTML Compilers

- Designed and built three different Markdown-to-HTML compilers in various languages featuring lexers (tokenizers), parsers, and code generators to support headings, lists, links, images, inline formatting, and more.
- Tech (per project): Ruby (Minitest) | Java (Spring Boot, JUnit, Gradle) | C# (ASP.NET Core, xUnit)

EDUCATION

Prime Digital Academy - Full Stack Software Engineering
November 2022 - April 2023

- Prime is a full-time, in-person, immersive 20-week coding bootcamp focused on modern web technologies.
- Tech: React.js, Node.js, Express.js, JavaScript, REST API, HTML, CSS

Mankato State University - Computer Science
August 2018 - May 2021

- 4 Semesters Completed
- Tech: Python