Adam Bourg

Denver, Colorado

Adam.Bourg@Gmail.com

(720) 491-0562

http://linkedin.com/in/adambourg/

Summary

I'm an expert in many web technologies and frameworks. I've been working with ReactJS and NodeJS for more than 8 years; collectively I have more than 12 years of professional development experience. I have been a solo developer to a hands-on technical team leader working with a team of over a dozen developers; I managed the budgets, architected the solutions and worked alongside development racing to meet important deadlines. You will find me committed, hard working and highly adaptable.

Skills

Libraries and Frameworks:
- React, Node, Express, Redux, MUI, GraphQL, DomPurify

Languages:
- Javascript, ES6, Typescript, Python, SQL, HTML, CSS, JSON, Bash, YAML, XML

Tools and technologies:
- Postgresql, MySQL, OpenAI, ChatGPT, LangChan, Git, Github, prompt engineering, Storybook, Jupyter Notebook, Terraform

Professional Experience

CoBank contracted through TekSystems - Greenwood Village, Colorado 03/2024 - Present
Lead Software Engineer IV (AI)
• Building a custom account management portal in React from scratch
• Building prototype AI systems using RAG search to streamline customer support (Python, LangChain)
• Mentoring and coaching college graduates on React and Node.JS development

Key Tech: React, Typescript, NodeJS, Storybook, Bootstrap, Python, LangChain, Terraform

Pomp Beauty, Inc - Denver, Colorado (Startup)   **04/2023 - 01/2024**
Senior Software Engineer
• Built a compliance tool to track contracts and agreements signed between the firm and all their contracted Estheticians leveraging GraphQL, NodeJS, Koa Framework
• Conducted an audit to determine application security threats and created a security mitigation plan
• Conducted extensive scalability testing and mitigation to ensure the application can grow by 10x users
• Created an API integration between Monday.com and our API backend to facilitate the marketing team to rapidly engage new estheticians who join the platform
• Educated our content team on fundamentals of Prompt Engineering to help them increase the ability to deliver more high quality content within the Pomp brand voice
• Built an AI assistant using OpenAI's Assistant API to take the skin survey data a user fills out, their name, the estheticians promo code and generate a first contact introduction message that can be sent via text message

Key Tech: React, Typescript, NodeJS, GraphQL, PostgreSQL, OpenAI

PwC   **03/2018 - 11/2022**
Senior Software Engineer and Software Engineer Team Lead (Contract) through MBO Partners

Project: Technology Risk Framework

• Designed & Architectured a compliance tool called Technology Risk Framework to help streamline the way PwC manages software compliance. Working with IFS we took an internal process consisting of Google Sheets and built a case management tool.
• Through building the compliance tool, we streamlined the process of evaluating risk for over half a billion dollars of software being developed. The application has over 5000 daily users with over 1000 active software products. This tool represents efforts to ensure legal and brand compliance by every department and partner firm in the organization affecting over 168 member firms worldwide building software for clients and internal use
• I built the tool by leading 10 engineers (most of whom were very Junior) leveraging NodeJS, Postgres and VueJS
• I trained and mentored offshore teams in the latest software development languages and frameworks including NodeJS, ReactJS and VueJS
• I managed people in multiple time zones including different US time zones, China and India for effective delivery
• I successfully managed scope, software design, project timeline, client relationship and budget of nearly $300,000 over the course of a year

Key Tech: React, Typescript, NodeJS, VueJS, Postgresql, GraphQL

Project: Third Party Tracker
• Built a portal to manage and investigate a major automobile company vendors and dealers in Brazil & Italy giving our client the ability to investigate their compliance risk dealing with over 800 suppliers, vendors and dealers this software directly affects the firm's ability to conduct over $500,000,000 annually in gross sells
• For the automobile project, I managed 2 teams, 9 based in Bangalore and 3 others dispersed across the USA all while remaining hands on writing NodeJS & React code

Key Tech: React, Typescript, NodeJS, Postgresql, GraphQL

SlingTV -- Denver, Colorado   **10/2016 - 02/2018**
Software Engineer Team Lead (Contract) through Qwinix
• Designed and built an internal Ruby Gem to encrypt all PCI customer data using AES 256
• Implemented integration with Gitlab Pipelines for automated deployments to S3 and for automated CI/CD
• Frequently presented for lunch and learn on topics including Ruby performance, security and code quality
• Led a team of 12 engineers to rebuild the account portal using React JS with Redux talking to newly built Java Spring Microservices. Deployed this application to serve 2.2 million customers of SlingTV
• Mentored 3 junior team members by pairing with them on technical tasks, coaching them in their careers and helping them develop as professional software engineers

Key Tech: React, Javascript, NodeJS, Postgres, AWS, Java, Spring, Redux, GitLab, Ruby, GraphQL

Active Junky -- Denver, Colorado (Startup)   **04/2016 - 10/2016**
Senior Software Engineer
• Reduced SQL queries from Active Record from over 2000 per page down to under 100 with only about 200 lines of code modified. Used the gems: active_record_query_trace, rack-mini-profiler, flamegraph, bullet to track down and identify issues where the code is really slow and inefficient. I determined where Active Record did not make sense and replaced it with custom SQL queries for calculations and data formatting.
• Used Apache benchmark with gems mentioned above to identify and eliminate 100 N+1 queries on the homepage to 5 queries to load all the homepage data in an average of 1 second under constant load.
• Used New Relic to determine we were wasting 20% response time over a month by waiting for API requests to complete with an average page load time of 16 seconds. Using Ruby and Resque I designed an automated worker process that is threadsafe to write the objects to memcache and ensure that the caches are always warmed before a user visits the page

• Took the backend Rspec test suite from 70% to 85% by using code coverage tools and determining places where we were using weak tests

Key Tech: Javascript, Ruby, Rails 4, PostgreSQL, AWS, Memcache, Akamai

UnitedHealth Group - Optum Technology, Broomfield, Colorado   **09/2014 - 04/2016**
Senior Software Engineer (Contract) through TekSystems
• Built a HIPAA compliant call center application in javascript, NodeJS and Backbone JS for all Kaiser Permanente agents which generated $50 million for UHG as part of their next generation call center application. It was used for open enrollment for Kaiser for 2015, resulting in over $100 million in sales.
• Designed Version 2 of the call center application to support onboarding of over a dozen clients to support a multi-tenant application, leveraging a reusable module pattern in Javascript and backbone
• Built the new member portal in Ember JS for Harken Health based in Georgia. Was responsible for implementing the User profile and Email pages.
• Designed and implemented the HIPAA compliant encryption system used for storing PHI and PII. I designed a reusable Gem for the company that allows developers to determine what fields should be encrypted using a Rails model attribute. Ex: attr_encrypt :name, :social_security_number
• Built a HIPAA compliant ETL application in Ruby on Rails 4.0 to load the medical history of 10 million patients to calculate anticipated health costs for the next year.
• Designed and built a HIPAA REST API in Ruby on Rails 4.0 using Grape and swagger to interface to a high level REST service layer to help millions consumers figure out what is the best type of health insurance based on their needs and usage.

Key Tech: Javascript, NodeJS, Bootstrap, BackboneJS, Ruby, Rails 4, PostgreSQL

Gloo, Boulder, Colorado   **03/2013 - 09/2014**
Software Engineer
• Built a HIPAA compliant REST API in Rails 3.2 using controllers and Jbuilder that delivers JSON content to thousands of Android and IOS clients. Automated documentation through the use of Swagger.
• Built a customizable dashboard in Angular that allowed users to change what content they could see on the home page.
Key Tech: Javascript, Ruby, Rails 4, Postgres, Twitter Flight, PostgreSQL

Volunteer Experience

Boston Tech Insights, Inc. - Boston, Ma (Startup)   **03/2023 - 09/2023**
Full Stack Engineer
• Helped an early stage startup to leverage a suite of AIs to generate insights into the commercial due diligence process as well as market research
• Built a SaaS web application to leverage B2B interviews to generate insights for mergers and acquisitions type projects.
• Quickly became an expert in Prompt Engineering, ChatGPT and LangChain

Compass Montessori High School, Golden, Colorado   **08/2021 - 03/2023**
Software Engineering Instructor
• Taught 20 total highschool students the principles of modern web development leveraging HTML, CSS, Javascript, React Native, Expo and React.

Education

Colorado State University
Bachelor of Science in Applied Computing Technology (Degree earned)   Graduated 2013