William J. Piel

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I am a software engineer with over twenty years of experience developing web applications and distributed systems. During this time, I have come to strongly value an iterative development process. I focus on early validation of assumptions, breaking work into small pieces and adapting as you learn. I have a deep passion for software-architecture design and the practice of software development.

RJMetrics

July 2012 — Present Director of Engineering

July 2010 — July 2012 Senior Software Engineer Second technical hire of a VC-backed startup. RJMetrics is a business-analytics SaaS startup. As Director of Engineering, I made contributions in the form of team leadership, hands-on development and improvements to processes and tooling. During my time here, I worked with a variety of technologies including clojure, PHP, python, mysql, postgres and AWS.

Billing System Overhaul – While switching to a new billing vendor, we decided to overhaul our notoriously buggy billing system. I acted as lead architect.

- Designed CQRS-style architecture and API.
- Translated complex business workflow requirements into a sane state machine.
- Implemented a robust scheduling system to handle event processing.

Improved Development Tooling and Process – Third-party API integrations are a critical part of our product offering. While building these integrations, I also developed tools designed specifically to optimize the development process.

- Improve efficiency of entire project team.
- · Leveraged omniscient debugging techniques.
- Developed mechanism to generate tests by capturing and replaying http traffic.

New Chart Builder and RJQL – One of the largest projects the company has undertaken was a near-total rewrite of our chart builder, a core element of the product UI/UX.

- Designed a query language, RJQL, which allowed us to leverage existing code, but with much improved flexibility and ease.
- Planned out six-month development schedule. Coordinated resources to keep us (very close to) on schedule.

Mentor – I often act as a mentor to other members of the team.

- Provide guidance on career development
- Help team-members work through difficult decisions and navigate sensitive situations.
- Promote a healthy company culture

"The" Framework – When I arrived, the product's web application was in a unmaintainable, disorganized state. My very first task at the company was to construct a framework that would lay the foundation for the web application code as we refactored.

- Still in heavy use today.
- Has required very few bug fixes or improvements over many years of heavy use.
- Designed to integrate smoothly with existing code base.

Microservices, REST and APIs – The company reached a critical maturation point where we opted to move to new technologies and architectures that would allow us to move faster in the long run. I played a key role in those decisions, as well as shaping the future of our system as it unfolded.

- Evangelized new technologies, patterns and best practices.
- Laid out foundation for our microservice architecture.
- Led design of REST API "blueprint" that our services adhere to.

Pepper Lillie Ltd

October 2004 — July 2010 Co-founder, Software Engineer My cousin and I founded a two-man web shop, Pepper Lillie. As the sole software developer, I was completely responsible for all technology decisions and implementation. Below is a description of various projects we undertook during my time in this role. Below is a small selection of projects we undertook. During this time, I typically worked with .Net, PHP and python.

Sparrow Technology Services – Before the last big crash, hedge funds were raking it in and looking for any advantage they could get. As our own entrepreneurial endeavor, we developed a SaaS offering targeting that audience. The software we developed was acquired, in 2006, by an NYC firm that services hedge funds.

- Architected a system to automatically retrieve public filings from SEC server on nightly basis
- Developed proprietary process for extracting financial data from SEC filings
- Application allowed user to download reports tailored to their specifications
- Built using ASP.Net, C# and MS SQL 2005

Social Great – During the check-in craze of '09, there were not just one, but multiple players in that space. I built a web app that aggregated data from the four top services in real time. The site displayed the most popular places to check-in on a map plus some additional data for each location.

- Architected a system that was able to collect, aggregate and analyze in realtime from multiple APIs
- Devised an algorithm to match imperfect venue data points between various sources

BeerJot – We liked beer and wanted a way to keep track of which beers we liked best.

- Mobile-targeted site for recording beer ratings
- Integrated with Facebook using OAuth 2.0 for authentication
- Built using PHP & MySQL

Pro World Inc. – Pro World is one of the many t-shirt sites on the internet. We were hired to build the web-based quote interface.

- Built wizard allowing customers to enter details to receive a custom quote
- Stores quote details and emails permanent link to customer
- Integrates with 3 party API to retrieve quote pricing data
- Used PHP, MySQL, Kohana framework and jQuery

Education

University of Delaware

B.S. Computer Engineering – Minor in Computer Science September 1998 – June 2002