Matt Withum
Staff Software Engineer

Address:	**Pittsburgh PA**
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Full-stack staff engineer with 20+ years shipping software. Pragmatic problem-solver who thrives in collaborative environments with strong engineers where I can contribute meaningfully while continuously learning. Passionate about clean architecture, testable code, and mentoring while being mentored.

Skills

AI
Claude code, Copilot, OpenAI Api

Frontend
React, Next.js, TypeScript, JavaScript, HTML, CSS, Angular

Backend & Services
C#, .NET (Core, Framework), ASP.NET, Node.js, WCF, WPF

Databases & Storage
SQL Server (2005+), PostgreSQL, MySQL, SQLite, Snowflake, Elasticsearch, Redis, Dapper ORM

Cloud & Infrastructure
AWS: EC2, VPC, S3, RDS, Route 53, Elastic Beanstalk, Auto Scaling Groups, ElasticCache, EBS, AWS CLI
Azure: App Services, SQL Databases

Tools & Platforms
Docker, RabbitMQ, MSMQ, ELK Stack, Datadog, Git

Currently Exploring
Webpack, HTMX, Advanced Next.js patterns, Supabase, Vercel, Distributed systems optimization

Experience

Paylocity
AUGUST 2018 - PRESENT

Staff Software Engineer - Reporting

Contributed heavily to all aspects of the reporting platform—from data model design and SQL Server query optimization to C# API development and both Angular/React frontend implementation.

Technical Expertise & Leadership:

- Created and maintained a custom query engine API in C# that could target multiple

data warehouses - SQL Server and Snowflake - while applying security, user supplied formulas, and multiple other rules specific to the reporting product.

- Heavily contributed to multiple reporting frontends, written in both React and Angular.
- Established as the subject matter expert on the company's entire reporting platform (legacy and latest generation) by developing deep architectural knowledge and maintaining relentless focus on system quality
- Advanced from Software Engineer to Staff Software Engineer through multiple promotions, demonstrating consistent professional growth and technical expertise
- Led multiple projects modernizing and scaling legacy systems through rewrites and facade implementations, ensuring seamless integration of old and new technologies
- Mentored engineers across levels in both technical and soft skills, while actively learning from senior architects on patterns like event-driven systems and data warehousing

Production Excellence & Observability:

- Became the go-to specialist for production issues, known for swift problem resolution, deep knowledge of observability platforms (ELK, Datadog), and maintaining composure under pressure
- Utilized caching strategies, database tuning, and microservices architecture to enhance a high-volume, critical reporting component of the ecosystem
- Collaborated closely with ops and platform teams on incident resolution, gaining hands-on expertise in observability patterns and incident response

Strategic Impact:

- Became the trusted resource for managers, POs, and executives for reporting questions and architecture decisions—as LinkedIn recommendations attest
- Gained deep expertise in data warehousing concepts (Kimball models, relational design) and applied them to build a configuration-driven reporting application
- Received consistently highest performance ratings from multiple managers

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Ectobox
6/14 TO PRESENT

Senior Software Engineer

Operated as a 1099 consultant providing custom software solutions for a variety of clients while maintaining a driving force for company improvements in process, tools, and development paradigms.

- Created solutions primarily using JavaScript, jQuery, C#, WPF, WCF, ASP.NET MVC, and SQL Server
- Became trusted resource to the company's largest client (in terms of revenue), chosen as the sole developer to remain on the project as it wound down
- Acted as a BA in many respects, gathering requirements from users and translating them into technical specs
- Designed Balsamiq wireframes for new software and features to give clients clear visibility before implementation
- Maintained consultant mindset: independent problem-solving, client communication,

and delivery excellence

Imagine Careers 6/14 TO 12/2017
Lead Software Engineer

Led the full-stack development of the Imagine Careers Platform—a Symfony 2 and Angular application—from initial concept through production launch.

- Designed the web application using distributed computing principles, implementing RabbitMQ for asynchronous processing and Elasticsearch for fast query results
- Mentored a small, changing team of junior and mid-level developers, keeping them productive and engaged
- Led the agile development process, serving as both developer and scrum master
- Designed and maintained the AWS infrastructure (RDS, Elastic Beanstalk, Elasticsearch, RabbitMQ, ElastiCache) needed to run the application at scale
- Completed code reviews with other developers to ensure modular, unit-testable, and maintainable code

TrackAbout 11/12 TO 6/14
Senior Software Engineer

Software developer for TrackAbout's SaaS asset-tracking platform, used globally to track compressed gas cylinders and other portable physical assets.

- Developed features for the Application Website (ASP.NET Webforms) and TAMobile6 (CF.NET on Windows Mobile 5/6/6.5)
- Applied SOLID principles and mocking frameworks to drive modular, testable, maintainable design
- Removed a critical single point of failure in the server load-balancing architecture
- DevOps Leadership: Appointed DevOps team lead, responsible for infrastructure automation, Jenkins CI jobs, technical debt reduction, and sys admin support
- Introduced Infrastructure as Code concepts and implemented Chef for Windows server management
- Built trust with support teams, product management, and executive leadership as a reliable technical resource

DATEL Software Solutions 09/07 TO 11/12
Senior Software Engineer / Product Manager

Built two separate products from inception through production:

- Contact SWEET! – A hosted ASP.NET MVC 3 help desk / web chat / call center monitoring application using Telerik MVC and KendoUI controls, JavaScript/jQuery, and jQuery UI
- Call SWEET! Live – A real-time and historical contact center reporting product consisting of Windows Services, a multi-threaded C# WinForms application, and an ASP.NET WebForms reporting/admin app

Played a major role in both products: database design, system architecture, testing, documentation, deployment, maintenance, and support. Also wrote Java and C++ to

interface with phone systems.

Lincoln Financial Group
09/06 TO 09/07

Statistical Database Analyst

Hired into the Professional Development Program—a management training program with access to management workshops and exposure to the CEO through a final project presentation. Administered and developed for the Client Services Metrics System, a series of networked MS Access databases.

Education

The Pennsylvania State University
09/01 TO 05/06

B.S., Management of Information Systems