Michael Wilson

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OBJECTIVES

- To apply my experience and expertise in software engineering and computer science to engineer valuable, lasting software.
- To learn and grow in a collaborative environment of diverse ideas.

EXPERIENCE

Narrative Science
Chicago, IL

Senior Software Engineer, DevOps Team Lead — December 2015 — Present

- Reduced infrastructure complexity and risk by standardizing around a single OS distribution and fully specifying all host configurations using *Ansible*, resulting in a uniform and fully-reproducible infrastructure
- Designed and directed implementation of on-premise packaging of *Quill 2* SaaS platform, enabling sales of existing software to many new customers
- Designed the build, release, and deployment processes for *Quill 3* to support fast, zero-downtime deploys, continuous integration, simple hot-patching, and uniform tooling for both SaaS and on-premise installations
- As a leader, cultivated and disseminated engineering standards and best-practices to improve the quality and value of software produced by the organization

Data Engineer — December 2013 — December 2015

- Designed, implemented, and deployed analysis pipelines to transform client data into payloads usable by *Quill* natural language generation suite using *Python*, *Pandas*, and *Apache Hadoop*
- Lead development of in-house documentation toolkit during company hackathon resulting in first place award; this toolkit was later deployed organization-wide, enabling major process improvement
- Created a heavily documented object-oriented framework for composing data pipeline applications, resulting in vast productivity enhancements across the engineering organization

Esqyr
St. Louis Park, MN (Remote)

Cofounder, Software Engineer — May 2014 — Present

- As a product developer, designed a software solution for administering the sale and delivery of Bar Exam preparatory materials to law students
- Implemented a mobile-responsive e-commerce web application with an *AngularJS* front-end, backed by a *Python RESTful* API with a *PostgreSQL* relational data store, deployed with *Ansible*
- Implemented a comprehensive test suite providing >91% statement/branch coverage, comprising >50% overall SLOC

The CareGiver Partnership
Neenah, WI (Remote)

Software Engineer — October 2009 — December 2013

- Facilitated full-scale reimplementation of web application platform software from *VB.NET* to *Python/Django*
- Implemented and supported a unified E-commerce, CRM, batch distribution/ fulfillment, and reporting software platform
- Realized tens of thousands of dollars in yearly savings by virtualizing server operations using commodity *Linux* VPS hosting
- Conceptualized and created a domain-specific guided search tool using *AngularJS–The Incontinence Product Finder*–enabling customers to more easily find and purchase product

SeatSync   Chicago, IL
Cofounder, Lead Software Engineer   January 2012 — November 2013
- Designed a P2P, location-aware ticket exchange platform including real-time chat
- Implemented and extensively documented an HTTP application server in *Python*
- Designed and implemented *Android* client software; directed development of *iOS* client software
- Conducted product viability analysis using *scikit-learn* and *matplotlib*

EDUCATION   **University of Wisconsin, Madison**   Madison, WI
Bachelor of Science, Computer Science   May 2009
- Notable courses include Computer Graphics, Operating Systems, Compilers, Bioinformatics, and Linear Algebra
- Worked at *Internet Scout Research Group* as a software developer; created custom CMS software for *UWAMIC* consortium using *PHP*

PROFESSIONAL **Side Projects**
INTERESTS
- Created an audio spectrum visualizer using *Rust*; implemented the *Cooley-Tukey* FFT algorithm, *Hamming* window function, and a *pulseaudio* foreign function interface
- Created a *WebSockets* server implementation in *Rust* along with a simple chat server and web front-end
- Implemented a Quadtree-based spatial image storage mechanism allowing logarithmic time storage and retrieval of application data

Continuing Education
- Earned a statement of accomplishment from *Coursera* for Cryptography I taught by Dan Boneh
- Earned a statement of accomplishment from *Coursera* for Machine Learning taught by Andrew Ng