

MATTHEW VAUGHAN

Software Engineer

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EXPERIENCE

Individual Contributor (1099)

Outlier

📅 11/2024 - Present 📍 Remote

AI company

- Write, review, correct, and improve AI generated python code
- Generate new prompts (with their responses) that challenge the current state-of-the-art AI models in the domain of software development

Independent Contractor (1099)

Focus EduVation

📅 10/2019 - 03/2020 📍 Woburn, MA

Offers a portfolio of services to enable online learning for businesses and universities

- Provide assessment materials, derived from lectures, for online courses educating students of information technology and/or data science.

Associate Member of Technical Staff (Software Engineer II)

Salesforce (by aquisition of Demandware)

📅 10/2015 - 11/2016 📍 Burlington, MA

World leader in CRM with an inclusive corporate culture

Acquired Demandware in 2015 for \$2.9B

- Utilize Java/Spring-MVC/VelocityEngine/HTML/JavaScript stack to implement security and platform features for a world-class SaaS e-commerce product (DemandWare) with thousands of enterprise tier clients (Kate Spade, ADIDAS, iRobot, Starbucks) and users in the hundreds of millions

Research Assistant

Tufts University

📅 01/2015 - 05/2016 📍 Medford, MA

Selective "right sized" university in Medford, Massachusetts

- Design declarative portion of a nano pass compiler in SML/NJ based on Andy Keep's work
- Implement a byte code executing virtual machine with parallel and concurrent generational garbage collection written in the C programming language
- Target C, JVM, LLVM, and x86_64 ASM as output languages for compilers

Software Engineer

International Business Machine (IBM)

📅 01/2014 - 01/2015 📍 Littleton, MA

Sterling Order Management

- Utilize Java/Dojo/HTML/JavaScript/XML stack to implement and test user interfaces for enterprise order management system (used by Target, Best Buy, Walmart, etc)

Database Manager

Phoenix Technologies (by aquisition of Touchstone Software)

📅 02/2006 - 12/2008 📍 North Andover, MA

Acquired Touchstone Software in 2008 for \$18M

- Keep 'DriverAgent' database of drivers up-to-date with most recently released hardware drivers for all versions of Windows
- Write PHP scripts to generate internal reports

EDUCATION

B.S. Computer Science minor Mathematics

University of Massachusetts - Lowell

📅 2010 - 2013

GPA
3.9 / 4.0

Ph.D. (Incomplete)

Tufts University

📅 2015 - 2016

GPA
3.8 / 4.0

STRENGTHS



Microservices

Employing **docker** containerized microservices for web servers, databases, middleware, and **REST** API fulfillment



Full Stack

Java, Python, Scala, Node.js, and PHP stacks with Apache, Nginx, Tomcat, and Django servers generating **HTML, CSS, and JavaScript**



E-Commerce and Order Management

Developing features for the **DemandWare** platform (*Salesforce*) and implementing user interfaces for **Sterling** order management (*IBM*)



Leadership

Subcontracting as many as four additional engineers to support larger contracts



Written and verbal communication Skills

164 verbal **GRE** score



"Photographic" memory

Perfect scores on delayed (<0.1%) and intermediate recall (<5%) indicated by **BVMT**

SKILLS

Languages (years)

<u>PHP(12)</u>	<u>Java(6)</u>	<u>C(8)</u>	<u>C++(5)</u>	<u>HTML(12)</u>
<u>JavaScript(12)</u>	<u>CSS(10)</u>	<u>Haskell(2)</u>	<u>Scheme(3)</u>	<u>SML/NJ(3)</u>
<u>Scala(4)</u>	<u>JSP(5)</u>	<u>Node.js(4)</u>	<u>JSON(11)</u>	<u>XML(11)</u>
<u>Python(3)</u>				

Tools

<u>Git</u>	<u>Jenkins</u>	<u>Bash</u>	<u>SSH</u>	<u>Virtual Box</u>
<u>VMWare Workstation</u>	<u>Linux</u>	<u>RDP</u>	<u>AWS</u>	<u>Docker</u>
<u>Kubernetes</u>				

Databases and servers

<u>Oracle</u>	<u>MongoDB</u>	<u>Tomcat</u>	<u>Apache</u>	<u>Nginx</u>
<u>OpenSMTPd</u>	<u>Django</u>	<u>Express</u>		

SUMMARY

I started programming as a teenager and worked in the tech industry after high school. I *decided to return to school* to hone my skills and legitimize myself as a software engineer. I *graduated summa cum laude* with a bachelors degree in *computer science* (two courses shy of a second bachelors in *mathematics*). I was encouraged to continue my studies in *graduate school* by my professors, but had accepted a job offer at *IBM*. Where I worked for a year before attending *Tufts University* to pursue a Ph.D.

Due to illness, I had to leave both graduate school and my engineering position in 2016. I've made a full recovery and now work part time for Outlier improving AI generated python code. I seek to return to my profession full time.