

David Watson

Ideation → Iteration → Innovation

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Summary

A computer science award before music school catapulted me into a computer programming internship afterward. Designed data products, developed software as a service, and deployed pipelines of tools. Moved ideas to code, data to science, and markdown to markup documentation. No matter the mode, Realizing Empathy makes consensus in Human-Computer sensemaking possible in AI interaction.

Experience

Wyvern 🌐

2023-2024

Technologist (1099)

Nashua, NH

- Roadmapped legacy code deprecation with team of four favoring Docker, Kubernetes, and Typescript infrastructure

Freelance 🌐

2022

Software Design Engineer

Pittsburgh, PA

- Prototyped PKM with GPT and Requests by building corpus from crawled frontier; Experimented with Arch Linux, Rust, Polars;

Caterpillar 🌐

2021

Technical Consultant (1099)

Pittsburgh, PA

- Optimized ZCU-104 Terrain Visualization port using GCC flags to gain 30% performance boost quickly without deeper tools or cost

Carnegie Mellon University (Emerging Technology Center (AI Division)) 🌐

2020

Senior Member of Technical Staff

Pittsburgh, PA

- Artificial Intelligence (AI), Human Computer Interaction (HCI), High Performance Computing (HPC) using Agile, KubeFlow, MLPerf

Caterpillar 🌐

2018-2020

Software Engineering Specialist (W-2)

Pittsburgh, PA

- Assembled Sensor Storage for Edge Network on Kubernetes to achieve Dev-Prod Parity using S3 as **protocol not product**, like Minio
- Collaborated with IT execs on planning and implications of cloud native storage burden to declarative vs fixed configuration

Rent Jungle (RainMaker (RealPage)) 🌐

2016-2018

Senior Software Engineer

Pittsburgh, PA

- Led weekly retro resulting in better communication, velocity, and teamwork via agile methods like affinity diagrams and pairs work
- Crafted Scrapy crawler (python 3) to cover real estate frontier without detection on Django, PostgreSQL, and Kubernetes

Wellbridge Health 🌐

2015-2016

VP Product Development, IT Compliance Officer

Pittsburgh, PA

- Deprecated legacy App Store dependency using browser-based Ember SPA MVP designed and delivered in concert with MAYA Design
- Developed API backend on Python 3 - Django REST Framework, PostgreSQL emitting JSON API to Ember SPA on Aptible

Experience (continued)

Forever 🌐

2013-2014

Senior Software Developer

Pittsburgh, PA

- Prototyped full-stack (Bootstrap to Heroku) on Proxmox-Gitlab quickly on Python 3 before porting MVP from Python to Ruby on Rails
- Enabled the company to capture strong market traction in just a year after releasing 1.0 e-commerce platform finished at Neo

SMaSh - Brainstorm SMS Technologies (Mind Matrix) 🌐

2011 - 2012

Senior Engineer

Pittsburgh, PA

- Wrote conversational text systems (like twilio) in Python, PostgreSQL, Flask, and Requests on Fedora Linux
- Supported large SMS text campaigns from Pittsburgh Steelers to Miller-Coors

Wellspring 🌐

2010-2011

Software Development Manager

Pittsburgh, PA

- Led Sophia and Flintbox teams from 1M SLOC data center to automated SaaS virtualization of CI/CD, DevOps, and SRE code culture
- Prototyped systems using Capistrano (Ruby), Mechanize (Python), and Selenium with team of 4-7 software engineers

Applied Perception (Foster Miller (Qinetiq)) 🌐

2008-2009

Project Engineer

Pittsburgh, PA

- Visualized XML sonar data in Python Beautiful Soup server and Microsoft Visual C++ GUI client on Windows for UUV deployments
- Ported Microsoft C# Windows GUI application to C++, Qt, Ubuntu Linux for OCU deployment of Talon Robot in EOD applications

NOMOS (North American Scientific, Best Medical) 🌐

2006-2007

UI Software Engineer

Pittsburgh, PA

- Coded C++ QA tests, maintained Perl code review system, CORVUS FDA-regulated product, team of 12, ~2M SLOC Mac
- Prototyped wireframes and rendered storyboards in C++/PyQt for adaptive 4D treatment planning with team of 4

MAYA Design (BCG) 🌐

2004-2006

Software Design Engineer

Pittsburgh, PA

- Won award for python web services emitting JSON to JDA clients on team of 4 developing A+ Schools, 3RC, humanservices.net
- Demoed GUI lighting IoT Zigbee PoC in Microsoft C#/COM/Visio on Windows for Phillips execs in 5 days sketch-to-code

Cobind 🌐

2003-2004

Cofounder

Pittsburgh, PA

- Designed DiY Linux Tools, YUMGUI, Desktop ISO with cofounder; Won worldwide press acclaim after Idea Foundry Fellowship GTM

Education

Duquesne University (Core in Computer Science, Music Education, Technical Writing) 🌐

BS-BA

Continuing Education

MIT IAP & RDBMS (Greenspun-Stonebraker)