Dav(id|e|o)? Watson

Creating software in products, services, and tools from idea to code, data to science, and dialog box to documentation.

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Summary

A **computer science** award before music school and a **computer programming** internship afterward convey that both music and tech evoke emotion. Cobind and MAYA echoed music school's culture. Shared learning guides teams from conflict to consensus. Ideas and tools shape product design and development. Feedback loops shape operations, service, and support. Flexible folks form agile teams like studio musicians jam. Pizza teams scale like tech, in small pairs of peers (1, 2, 4, 8). We improvise and orchestrate, just like tech!

Experience

Wyvern ⊕   2023-2024
Architechnologist   Nashua, NH

- Synthesizing ideas from software architecture, design, and deployment around the TypeScript ecosystem from API to HCI

Freelance ⊕   2022
Software Design Engineer   Pittsburgh, PA

- Prototyped Personal Knowledge Management concept around GPT, experimented with data in Rust/Polars, and more

Caterpillar ⊕   2021
Technical Consultant (1099)   Pittsburgh, PA

- Built C++/GCC/Linux code ported from Intel to ZCU-104 MPSoC using FPGA compiler flags for 20%-50% time optimization

Carnegie Mellon University (Emerging Technology Center) ⊕   2020
Senior Member of Technical Staff   Pittsburgh, PA

- Artificial Intelligence (AI), Human Computer Interaction (HCI), High Performance Computing (HPC)

Caterpillar ⊕   2018-2020
Software Engineering Specialist (W-2)   Pittsburgh, PA

- Assembled Sensor Storage for Edge Network on Kubernetes using Python 3, Minio, and PostgreSQL with a team of 4 engineers
- Collaborated with 12 IT execs on planning and implications of hyperconverged infrastructure on cloud native storage
- Worked on web service concepts related to Git for Data Storage (like Pachyderm or LakeFS) with pair partner in Golang (Go)

Rent Jungle (RainMaker (RealPage)) ⊕   2016-2018
Senior Software Engineer   Pittsburgh, PA

- Led weekly retro resulting in better cadence, communication, velocity, and teamwork
- Crafted Scrapy/Tor (python 3) crawler on Django, PostgreSQL, Kubernetes

Wellbridge Health ⊕   2015-2016
VP Product Development, IT Compliance Officer   Pittsburgh, PA

- Built data analysis and tools from experiments in pandas and Python.
- Led 4-person interdisciplinary design team through Ember SPA MVP designed and delivered in collaboration with MAYA Design
- Developed API backend on Python 3 - Django REST Framework, PostgreSQL emitting JSON API to Ember SPA on Aptible

Hire an Esquire (Major, Lindsey, and Africa) ⊕   2014
VP Engineering   Pittsburgh, PA

- Led a team of 6 through a lean Python 3 redesign and refactoring of the entire UI/UX from legacy MVP Django system
- Reduced daily production firefighting by more than 50% using nimble methods, automated tests, CI/CD, code and design review

Forever ⊕   2013-2014
Senior Software Developer   Pittsburgh, PA

- Prototyped full-stack (Bootstrap to Heroku) cloud idea in 2 weeks on Python 3 before porting MVP from Python to Ruby on Rails

- Enabled the company to capture strong market traction in under 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

- Supported large SMS text campaigns from Pittsburgh Steelers to Miller-Coors

Wellspring Worldwide ⊕   2010-2011
Software Development Manager   Pittsburgh, PA

- Responsible for Sophia and Flintbox product development, deployment, and support

- Led team of 12 from slow legacy data center of > 1M SLOC to fast, automated SaaS virtualization of CI/CD, DevOps, and SRE

- 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 backend/C++ GUI application on Windows

- Ported Microsoft C#.net Windows GUI to C++/Qt/Linux for OCU deployment

NOMOS (North American Scientific, Best Medical) ⊕   2006-2007
UI Software Engineer   Pittsburgh, PA

- Coded C++ QA tests and maintained Perl code review system on CORVUS FDA-regulated radiotherapy product team of 12, ~2M LOC

- Prototyped wireframes and rendered storyboards in C++/Python2/Qt for adaptive 4D treatment planning with team of 4

MAYA Design (BCG) ⊕   2004-2006
Software Design Engineer   Pittsburgh, PA

- Deployed python web services emitting JSON to JDA clients on team of 4 developing A+ Schools, 3RC, DHS to win an award

- Demoed GUI lighting IoT Zigbee PoC in C#.net/COM/Visio on Windows for Phillips execs in 5 days sketch-to-code

Cobind ⊕   2003-2004
Cofounder   Pittsburgh, PA

- Borrowed cobind concept from research signifying binding an app with its OS cooperatively and declaratively (like embedded)

- At the time, Redpath, Suse, and Timesys could build custom linux, albeit embedded. Spoke to Ian Murdock about Progeny too

- Collaborated on Linux Tools startup with cofounder and consultant. Received worldwide press after Idea Foundry Fellowship

Education

Duquesne University ⊕   BSBA
Coursework   Computer Science, Music Education, Systems Analysis, Technical Writing

Passion   Euglycemia, Fasting, and Feasting

Personal Interests   Reading, Writing, and Running

Potential Books   Synthesizing an Arc from Trivium to Quadrivium by Bridging the Bicameral Chasm from GPT to MIDI