David Watson

Software Design Engineer Seeks Technical Communication, Developer Experience, or Leadership Role

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Experience

Freelance   2020-present

- **Solo** Recapitulation of Cobind Desktop Community concept from 2004: Rust, Cosmic Tiling Window Manager **2024 - present**

- **Wyvern** (1099) Roadmapped port of legacy code to Docker, Kubernetes, and Typescript infrastructure **2023-2024**

- **Paired** with design peer prototyping Personal Knowledge Management on GPT-Requests by building corpus from crawled frontier **2022**

- **Caterpillar** (1099) Built ZCU-104 Terrain Visualization using GCC flags for required performance boost for demo GTM decision **2021**

- **Carnegie Mellon University** Artificial Intelligence (AI), Human Computer Interaction (HCI), High Performance Computing (HPC) **2020**

Caterpillar   2018-2020

Software Engineering Specialist   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

Hire an Esquire (Major, Lindsey, and Africa)   2014

VP Engineering   Pittsburgh, PA

- Led a team of 4 through a lean Python 3 redesign and refactoring of the entire UI/UX from legacy MVP Django system

- Reduced daily production firefighting by using agile methods, automated tests, CI/CD, code review and design review

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

Experience (continued)

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

- Agile, DevOps and Site Reliability Engineering were mostly imaginary then but hacking Linux Distro tools was learning by failing

Education

Duquesne University (Courses: Business, CS, Tech Writing)   BS   **Continuing Education**   MIT IAP & RDBMS (Greenspun-Stonebraker)

Music   Taught Drums, Played Gigs, Live and Studio   **Passions**   Cycling, Reading, Running, Skiing, Writing