David Watson (412) 376-7565

d@davidwatson.org

Summary

Designing, developing, and deploying software from feasible prototype to shippable product to viable profit.

Objective

Shape software with a reflective team of caring collaborators sharing commonaesthetics, methods, and tools.

Knowledge and Skills

| Platforms | Languages | Databases | Containers & VMs |
|--------------|------------------|-----------------|------------------|
| Linux | C/C++ | Postgres | Docker |
| MacOS | HTML/CSS/JS | SQLite | Kubernetes |
| Windows | Python | Redis | Proxmox |
| Architecture | Integration (CI) | Deployment (CD) | Frameworks |
| API | Jenkins | Aptible | Django |
| HCI | Circle CI | Capistrano | Flask |
| LXC/KVM | GitOps | Shippable | Rails |

Experience (Primary)

| Software Engineering Specialist | <u>Caterpillar</u> | 2018-2020 | | |
|---|--------------------|-----------|--|--|
| Designed storage system on Kubernetes; Worked with IT to make provisioning private cloud infrastructure feasible | | | | |
| Senior Software Developer | Rent Jungle | 2016-2018 | | |
| Coded crawler data pipeline from Docker and Kubernetes on Linux & Mac to AWS in Python with Postgres & MySQL | | | | |
| VP Product Development | Wellbridge Health | 2015-2016 | | |
| Led product development team from MVP to telehealth sensor system in Python, Flask, Django, Postgres, and Aptible | | | | |
| Senior Software Developer | <u>Forever</u> | 2013-2014 | | |
| Prototyped MVP in Python, Flask, NoSQL; Ported system to Ruby/Rails/Postgres for production deployment on Heroku | | | | |
| Senior Engineer | <u>SMaSh</u> | 2011-2012 | | |
| Built conversational text interface to track blood glucose for diabetes patients in Python, Flask, Postgres, and Heroku | | | | |
| Software Development Manager | Wellspring | 2010-2011 | | |
| Transformed legacy ops from data center to automated CI/CD SaaS deployment cutting daily support to near zero | | | | |
| Project Engineer | Applied Perception | 2008-2009 | | |
| Ported C#.net GUI to Linux OCU in C++/Qt; Programmed Python XML sonar parser/viz between C++ GUI & HULS | | | | |
| UI Software Engineer | <u>Nomos</u> | 2006-2007 | | |
| Automated QA tests in C++ for Corvus radiation oncology product; Prototyped adaptive 4D radiotherapy in C++/Qt | | | | |
| Software Design Engineer | MAYA Design | 2004-2006 | | |
| Developed web stack on Linux & Mac in Python and NoSQL database; built predecessor to Hue in C#.net for Philips | | | | |
| Co-Founder | Cobind | 2003-2004 | | |
| Won an Idea Foundry Transformation Fellowship; launched DIY Linux Tools startup; built custom Linux distros online | | | | |
| | | | | |

Awards

| Infoworld | Top 100 Award | Design and delivery of MAYA's DHS humanservices.net project |
|--------------|---------------------------|--|
| Idea Foundry | Transformation Fellowship | Startup (Cobind) Seed Investment and Entrepreneurial Support |

Experience (Secondary)

Consultant <u>Caterpillar</u> 2021

Built and profiled terrain visualization C++ code ported from Intel to Xilinx ZCU-104

Senior Member of Technical Staff Carnegie Mellon 2020

At SEI, collaborated with groups from ATAK, Intel and NREC supporting projects like AI, HCI, and HPC in C++ and Python

VP Engineering Hire an Esquire 2014

Led redesign, refactoring, and deployment of ground-up demolition of legacy Python, Django, Postgres web stack

Consultant <u>lenthRow</u> 2009

Designed and built TenthRow - a web-based system to deliver a<u>live music experience</u> via streaming to fans worldwide

Consultant

MAYA Design
2008

Colaborated with MAYA Design on usability of Bayer Diabetes Glycemic Monitor

Consultant Zenit Solutions 2008

Designed and implemented python reporting system in web2py and postgresql to track movers via PostGIS and web2py

Open Source

Programmer Github Issues Report Coordinated code and configuration from the team at Rent Jungle

Programmer BodyTrace API, PostgREST Authored BodyTrace API and PostgREST client-server in Wellbridge Health JSON-API

Programmer Marquee Contributed servlet implementation to Marquee XML-RPC library

Quotes From Coworkers

His skills as a top-notch technical author makes him a great collaborator.

- He has a genuine interest in nurturing and mentoring others to help them achieve their goals.
- ➡ His sense of business, technology, and insights into usability makes him a great team member.
- what impresses me most is his curiosity, critical thinking, and commitment to continued learning.

Education and Learning

 Duquesne
 Bachelor of Science

 Github
 Git Foundations Workshop

 PyCon
 Python Conference

RDBMS and Internet Application Programming MIT (CE)