David Watson (412) 376-7565

d@davidwatson.org

Rails

Summary

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

Objective

Craft software with a caring, daring, reflective team of creatives sharing common aesthetics, methods, and tools.

Knowledge and Skills

Platforms	Language	Database	Cloud
Linux MacOS Windows	C/C++ HTML/CSS/JS Python	Postgres SQLite Redis	Docker Kubernetes Proxmox
Architecture	Integration (CI)	Deployment (CD)	Frameworks
API	Jenkins	Aptible	Django
HCI	Circle CI	Capistrano	Flask

Shippable

GitOps

Experience (Primary)

LXC/KVM

SW Eng Specialist	Catarnillar	2018-2020		
SW Eng. Specialist	<u>Caterpillar</u>	2010-2020		
Designed storage system on Kubernetes; Worked with IT to make provisioning private cloud infrastructure feasible				
Sr. SW Dev.	Rent Jungle	2016-2018		
Coded crawler data pipeline from Docker and Kubernetes on Linux & Mac to AWS in Python with Postgres & MySQL				
VP Product Dev.	Wellbridge Health	2015-2016		
Led product development team from MVP to telehealth sensor system in Python, Flask, Django, Postgres, and Aptible				
Senior SW Dev.	<u>Forever</u>	2013-2014		
Prototyped MVP in Python, Flask, NoSQL; Ported system to Ruby/Rails/Postgres for production deployment on Heroku				
Senior Eng.	<u>SMaSh</u>	2011-2012		
Built conversational text interface to track blood glucose for diabetes patients in Python, Flask, Postgres, and Heroku				
SW Dev. Mgr.	Wellspring	2010-2011		
Transformed legacy ops from data center to automated CI/CD SaaS deployment cutting daily support to near zero				
Project Eng.	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 SW Eng.	<u>Nomos</u>	2006-2007		
Automated QA tests in C++ for Corvus radiation oncology product; Prototyped adaptive 4D radiotherapy in C++/Qt				
SW Design Eng.	MAYA Design	2004-2006		

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

Cobind

Developed web stack on Linux & Mac in Python and NoSQL database; built predecessor to Hue in C#.net for Philips

Won an Idea Foundry Transformation Fellowship; launched DIY Linux Tools startup; built custom Linux distros online

Experience (Secondary)

Consultant Caterpillar 2021

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

Sr. MTS 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 Eng. <u>Hire an Esquire</u> 2014

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

Consultant TenthRow 2009

Designed and built TenthRow - a web-based system to deliver alive music experience 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 2017

Coordinated code and configuration from the team at Rent Jungle

Programmer BodyTrace API, PostgREST 2015

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

Programmer Marquee 2003

Contributed servlet implementation to Marquee XML-RPC library

Quotes From Coworkers

➡ He genuinely cares about the users of systems he's building.

He's more like a music producer than the typical software engineer.

- ₱ 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 collaborator.

Education and Learning

 Duquesne
 Bachelor of Science

 Github
 Git Foundations Workshop

 PyCon
 Python Conference

RDBMS and Internet Application Programming MIT (CE)