

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 common [aesthetics](#), [methods](#), and [tools](#).

Knowledge and Skills

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

Experience (Primary)

Software Engineering Specialist	Caterpillar	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 Development	Forever	2013-2014
Prototyped MVP in Python, Flask, NoSQL; Ported system to Ruby/Rails/Postgres for production deployment on Heroku		
Senior Engineer	SMaSh	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	Nomos	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	Caterpillar	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 AT&T, 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	TenthRow	2009
Designed and built TenthRow - a web-based system to deliver live 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	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.
- 💬 What impresses me most is his curiosity, critical thinking, and commitment to continued learning.
- 💬 His sense of business, technology, and insights into usability makes him a great team member.

Education and Learning

Duquesne	Bachelor of Science
Github	Git Foundations Workshop
PyCon	Python Conference
RDBMS and Internet Application Programming	MIT (CE)