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## Summary

Programmer cycling prototype experiments to design, develop, and deploy complete, productized, commercial software.

## Objective

Craft software with a caring, daring, reflective team of creatives sharing common [aesthetics](#), [methods](#), and [tools](#).

## Knowledge and Skills

Platforms	Languages	Database	Cloud
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

## Long-Term Experience

<b>Software Engineering Specialist</b>	<a href="#">Caterpillar</a>	2018-2020
Designed storage system on Kubernetes; Worked with IT to make provisioning private cloud infrastructure feasible		
<b>Senior Software Developer</b>	<a href="#">Rent Jungle</a>	2016-2018
Coded crawler data pipeline from Docker and Kubernetes on Linux & Mac to AWS in Python with Postgres & MySQL		
<b>VP Product Development</b>	<a href="#">Wellbridge Health</a>	2015-2016
Led product development team from MVP to telehealth sensor system in Python, Flask, Django, Postgres, and Aptible		
<b>Senior Software Developer</b>	<a href="#">Forever</a>	2013-2014
Prototyped MVP in Python, Flask, NoSQL; Ported system to Ruby/Rails/Postgres for production deployment on Heroku		
<b>Senior Engineer</b>	<a href="#">SMaSh</a>	2011-2012
Built conversational text interface to track blood glucose for diabetes patients in Python, Flask, Postgres, and Heroku		
<b>Software Development Manager</b>	<a href="#">Wellspring</a>	2010-2011
Transformed legacy ops from data center to automated CI/CD SaaS deployment cutting daily support to near zero		
<b>Project Engineer</b>	<a href="#">Applied Perception</a>	2008-2009
Ported C#.net GUI to Linux OCU in C++/Qt; Programmed Python XML sonar parser/viz between C++ GUI & HULS		
<b>UI Software Engineer</b>	<a href="#">Nomos</a>	2006-2007
Automated QA tests in C++ for Corvus radiation oncology product; Prototyped adaptive 4D radiotherapy in C++/Qt		
<b>Software Design Engineer</b>	<a href="#">MAYA Design</a>	2004-2006
Developed web stack on Linux & Mac in Python and NoSQL database; built predecessor to Hue in C#.net for Philips		
<b>Co-Founder</b>	<a href="#">Cobind</a>	2003-2004
Won an Idea Foundry Transformation Fellowship; launched DIY Linux Tools startup; built custom Linux distros online		
<b>Senior Software Engineer</b>	<a href="#">Management Science Associates</a>	2000-2003
Created VBA plugin enabling remote product import over SOAP protocol from Microsoft Excel to product database		
<b>Principal Member of Technical Staff</b>	<a href="#">CA, Legent, Platinum</a>	1995-2000
Wrote GUI features (CMS, NMS) in C++ on Windows and OS/2 for Automation Point, Raveler, and Unicenter products		

## Short-Term Experience

<b>Technical Consultant</b>	<a href="#">Caterpillar</a>	2021
Built and profiled terrain visualization C++ code ported from Intel to Xilinx <a href="#">ZCU-104</a>		
<b>Senior Member of Technical Staff</b>	<a href="#">Carnegie Mellon</a>	2020
At SEI, collaborated with groups from ATAK, Intel and NREC supporting projects like AI, HCI, and HPC in C++ and Python		
<b>VP Engineering</b>	<a href="#">Hire an Esquire</a>	2014
Led redesign, refactoring, and deployment of ground-up demolition of legacy Python, Django, Postgres web stack		
<b>Senior Software Engineer</b>	<a href="#">PPG</a>	2007
Member of team building and shipping C++ code for Spectrophotometer used in 40,000 body shops		
<b>Technical Consultant</b>	<a href="#">Zenit Solutions</a>	2008
Designed and implemented python reporting system in web2py and postgresql to track movers via PostGIS and web2py		
<b>Technical Consultant</b>	<a href="#">TenthRow</a>	2009
Designed and built TenthRow - a web-based system to deliver a <a href="#">live music experience</a> via streaming to fans worldwide		
<b>Usability Consultant</b>	<a href="#">MAYA Design</a>	2008
Colaborated with MAYA Design human sciences group on Bayer Diabetes Blood Glucose Monitor		






## Awards

<b>Infoworld</b>	Top 100 Award	2006
Design and delivery of DHS humanservices.net project at MAYA Design		
<b>Idea Foundry</b>	Transformation Fellowship	2003
Startup (Cobind) Seed Investment and Entrepreneurial Support		

## Open Source

<b>Individual Technical Contributor</b>	<a href="#">Github Issues Report</a>	2017
Coordinated code and configuration from the team at Rent Jungle		
<b>Individual Technical Contributor</b>	<a href="#">BodyTrace API</a> , <a href="#">PostgREST</a>	2015
Wrote the BodyTrace API and the PostgREST server while prototyping the Wellbridge Health JSON-API to EmberData		
<b>Individual Technical Contributor</b>	<a href="#">Marquee</a>	2003
Contributed the servlet implementation to Marquee XML-RPC library		

## Quotes From Coworkers

-  He's smart, dedicated and diligent but...
-  What impresses me most is his curiosity, critical thinking, and commitment to continued learning. He genuinely cares about the users of systems he's building.
-  He also has a genuine interest in nurturing and mentoring others to help them achieve their goals.
-  His sense of business, technology, linux platform knowledge and insights into usability topped with his skills as a top-notch technical author makes him a great team member and collaborator.
-  What strikes you the most when working with David is his ability to see the bigger technological picture and his painstaking attention to subtle nuances of detail.

## Education and Learning

<b>PyCon</b>	Python Software Foundation Conference	2018-2019
<b>Github</b>	Git Foundations Workshop	2012
<b>MIT (Greenspun and Stonebraker)</b>	RDBMS and Internet Programming	2012
<b>Duquesne University</b>	Bachelor of Science	1991