# David Watson

[d@davidwatson.org](mailto:d@davidwatson.org)

Software developer designing, deploying, and documenting prototypes, products, and processes from API to GUI to HCI across R&D labs, design studios, and tech startups for more than three decades.

## Experience

**2023-2024** *Technical Consultant (1099)* [***WYVERN Ltd***](https://www.wyvernltd.com)

* Integrated legacy PHP and Typescript point products into unified product suite

**2021** *Technical Consultant (1099)* [***Caterpillar***](https://builtin.com/brand-studio/caterpillar-autonomous-intelligent-machinery-is-here-and-now)

* Built and optimized terrain visualization C++ code ported from Intel to Xilinx

**2020** *Senior Member of Technical Staff (W-2)* [***Carnegie Mellon University***](https://www.cmu.edu/)

* Researched and Developed AI, HPC, and HCI in SEI Emerging Technology group

**2018-2020** *Software Engineering Specialist (W-2)* [***Caterpillar***](https://builtin.com/brand-studio/caterpillar-autonomous-intelligent-machinery-is-here-and-now)

* Collaborated with IT executives to move data storage provisioning to cloud native

**2016-2018** *Senior Software Developer (W-2)* [***RealPage***](https://www.realpage.com/)

* Transformed legacy crawler into modern cloud native data pipeline

**2015-2016** *VP Product Development (W-2)* [***Wellbridge Health***](http://wellbridgehealth.com/licensing)

* Sunset MVP, built API backend and production deployment; MAYA designed and developed UX/UI

**2013-2014** *Senior Software Developer(W-2)* [***Forever***](https://www.forever.com/)

* Prototyped MVP solo; developed 1.0-2.0 production releases with team of 4;

**2011-2012** *Senior Engineer (W-2)* [***SMaSh***](https://www.mindmatrix.net/)

* Built conversational SMS text interfaces with a team of two
* Supported large production clients such as Pittsburgh Steelers and Miller-Coors

*Student* [***Github***](https://www.github.com/), [***Hack PGH***](https://www.hackpgh.org/), [***MIT***](https://www.mit.edu/)

* Completed *Git Foundations Workshop* course
* Completed *Programming Arduino: Physical Pixels* course
* Completed *RDBMS and Internet Application Programming* (Greenspun/Stonebraker) course

**2010-2011** *Software Development Manager(W-2)* [***Wellspring Worldwide***](https://www.wellspring.com/)

* Led team to transform legacy data center deployment to automated CI/CD pipeline

*Student* [***UPMC***](https://www.upmc.com/services/integrative-medicine/classes/meditation)

* Completed Mindfulness-Based Stress Reduction course at UPMC Shea Medical Center

**2009** *Technical Consultant (1099)* [***TenthRow***](https://www.youtube.com/@TenthRowConcerts)

* Developed live music experience in the browser streaming to fans worldwide

**2008-2009** *Project Engineer (W-2)* [***Qinetiq***](https://www.qinetiq.com/en/what-we-do/services-and-products/talon-medium-sized-tactical-robot)

* Ported C# GUI to C++/Qt OCU; Coded python sonar parser/visualization bridging sensors->UI

**2008** *Usability Consultant (1099)* [***MAYA Design***](https://www.fastcompany.com/1279088/inside-maya-designs-innovation-boot-camps)

* Provided design feedback to MAYA Design on usability of Bayer Diabetes Glycemic Monitor

**2008** *Technical Consultant (1099)* [***Zenit Solutions***](http://www.movemarker.com/pdf/Zenit_whitepaper.pdf)

* Designed and implemented python system to track inbound/outbound movers in Google Maps

**2006-2007** *UI Software Developer (W-2)* [***Nomos***](http://www.nomos.com/)

* Wrote QA tests for Corvus radiotherapy product; Designed and Prototyped 4D UI/UX

**2004-2006** *Software Design Engineer (W-2)* [***MAYA Design***](https://www.gbbn.com/work/maya-design-headquarters/)

* Built AJAX stack on Python and NoSQL DB
* Designed and implemented early stage Zigbee drag and drop lighting design prototype for Lutron/Phillips
* Received [top 100 Award](https://books.google.com/books?id=oDYEAAAAMBAJ&lpg=PA20&vq=u-form&pg=PA20#v=onepage&q=u-form&f=false) from InfoWorld magazine for deployment of DHS website

**2003-2004** *Cofounder (W-2)* [***Cobind***](https://rubenerd.com/p1191/)

* Won Idea Foundry [fellowship](https://www.ideafoundry.org/about#:~:text=Our%20initial%20program%2C%20The%20Transformational%20Fellowship%2C%20has%20evolved%20into%20our%20Impact%20Innovation%20Program%20and%20its%20portfolio%20has%20grown%20and%20created%20impact%20throughout%20the%20world.) to launch Cobind
* Ideated and shipped the Cobind Desktop to test the DIY Linux build tools

**2000-2003** *Senior Software Engineer (W-2)* [***Management Science Associates***](https://www.msa.com/)

* Envisioned and implemented client-server web services bridge which imported products from Excel through VBA to DB

**1995-2000** *Principal Member of Technical Staff (W-2)* [***CA Technologies***](https://en.wikipedia.org/wiki/CA_Technologies)

* Wrote C++ code on Legent Automation Point, Platinum Raveler, and CA-Unicenter products

**1992-1995** *Programmer (W-2)* [***Mellon Financial***](https://en.wikipedia.org/wiki/Mellon_Financial)

* Implemented C++ on Executive Workbench product on OS/2
* Wrote first bank-wide rolodex in VB

**1990-1992** *Programmer (W-2)* [***United States Steel***](https://en.wikipedia.org/wiki/U.S._Steel)

* Programmed API in IBM/Microsoft C compiler on OS/2 to reduce ops load in the datacenter

## Education

* [**Duquesne University**](https://www.duq.edu/)
  + ***BS/BA*** - Coursework included Business, Computer Science, and Music