Chris Winters

chris@cwinters.com · @cwinters · https://linkedin.com/in/winterschris · 412.638.2794

US Digital Service (HQ: Washington, DC; me: Pittsburgh, PA - https://www.usds.gov)

Digital Service Expert (6/2021 - Present)
Project 1 (3 mo): Worked with teams at HHS to improve systems tracking health and sponsorship of unaccompanied minors at the southern border. Working closely with user researchers, helped prototype new functionality in legacy system that provided actionable data to case managers to help them prevent minors from being released into human trafficking situations.

Turnitin (Pittsburgh, PA · https://www.turnitin.com/)

Senior Director, Software Engineering (1/2021-6/2021)
Director, Software Engineering (5/2018-1/2021)
Led organization-wide efforts to enable teams to be **self-sufficient and independent**, supporting microservice architecture and product team growth. Included: (1) managing a new distributed Application Operations team to **improve application cycle times**; (2) standardizing and improving **automated testing**, including load, browser, and API integration; (3) **changing culture** around testing through tooling, implementation, and advocacy. Also managed managers across multiple distributed teams, and acted as point office ops (~40 people). Wore many hats and filled many gaps across the org.

Senior Manager, Software Engineering (8/2016-5/2018)
Manager, Software Engineering (8/2015-8/2016)
Principal Software Engineer (10/2014–6/2015)
Led transition of automated essay scoring and feedback machine learning system, and team supporting it, from small-scale pilots to national deployment in secondary schools. **Tripled size of engineering team** and helped build up team competencies in continuous deployment, monitoring, and agile development. Worked across many functions (bizdev, product management, UX) to scope, design, and build new features large and small. Helped create **Docker**-based infrastructure and underlying libraries for **Python microservices** running on AWS ECS (plus many other cloudy acronyms).

ModCloth (Pittsburgh, PA · https://www.modcloth.com/)

Senior Software Developer (1/2014–9/2014)
Led team to **redesign ecommerce checkout** process responsible for majority of revenue ($120m/year), creating a new API with a new set of services in a legacy **Rails** codebase. Surgically improved **MySQL** schema and ORM use to accommodate holiday traffic.

Summa Technologies (now CGI) (Pittsburgh, PA · https://www.cgi.com/en)

Senior Technical Consultant (12/2011–1/2014)
Project 2 (15 mo): Helped enable **8x growth** (15k ⇒ 120k daily students) over four months in rapidly growing edtech system by making many incremental design and performance improvements in application and database layers. Core system was **Ruby on Rails** deployed on Heroku, helped **move to AWS** and performed extensive changes to data model to archive 80% YoY data to handle 5x projected year-over-year growth.

Project 1 (9 mo): Lead developer for web-based audio/video Telemedicine platform in **Ruby on Rails** using **Redis** and **Faye** for near-realtime browser notifications and a custom library for rich **client-side JavaScript** data and model manipulations.

Vocollect (now Honeywell) (Pittsburgh, PA · https://www.vocollect.com/)

Software Architect (6/2006–12/2011)
Lead developer on AccuNurse, a voice-assisted point-of-care documentation system. Worked closely with clinical specialists to design and implement features such as analysis for alert conditions and coding documentation into reimbursement reporting forms. Architecture based on **Java services in Spring** including web services, socket data interface, and integration with third-party clinical software packages. Also represented org in **healthcare standards organizations** (IHE, HL7). Company grew over five years to 45 employees and $12m annual revenue.

Software Engineer, New Ventures (6/2005-6/2006)
Sole engineer on new markets team to find new markets for voice-operated wearable computing platform. Helped identify business needs and technical constraints for voice-directed work in several disparate industries, and built server and tooling to support rapid application development and prototype new ideas.

Software Test Engineer (9/2004–6/2005)
Leader in **testing automation**, developing (1) a high-level web and SOAP scenario testing framework, and (2) a tool to realistically emulate hundreds of wearable computers using scriptable Java components and high-level concurrency constructs.

(1992-2004 experience available on request)

Building blocks

- **Languages**: Python, SQL, JavaScript, Java, Ruby, bash, Go
- **Frameworks**: HTTP, REST, Flask, Locust, Django, Ruby on Rails, Java Servlets, Spring, Hibernate, node.js (Express), JEE with lots of acronyms
- **Development Infrastructure**: Git, GitHub, Vim, IntelliJ IDEA, Jenkins, NewRelic, Loggly, Sentry, Codeship, Bitbucket, JIRA, Slack, Swagger, Slate, Markdown, Wikis
- **Databases:** PostgreSQL, MySQL, Oracle, Microsoft SQL Server, SQLite, H2/HSQLDB
- **Ops**: Docker, AWS (ECS, RDS, EC2, S3, SNS, SQS), Kubernetes, Linux, Terraform

Presentation highlights:

- 2019: “Feedback Loops Between Tooling and Culture”, Pittsburgh Techfest (slides)
- 2017, “Why should I care about Docker?”, Erie Day of Code (video)
- 2016, “Microservices: Moving stuff around”, Pittsburgh Techfest (slides)
- 2013, “Database Sharding”, with Carol Nichols, Pittsburgh Techfest

Education:

B.A., History at University of Pittsburgh (1992)