

PAUL R. OJANEN

423-914-7751

engineer@alum.mit.edu

Military resume available at <http://ojanen.com/resumes>

OBJECTIVE: Deliver business value via software solutions.

SUMMARY: I am a trained and experienced software developer, engineer, and mathematician. In the military, I gained teamwork, leadership, and planning skills. Academia honed my communication and reasoning abilities, and it taught me rigor. Real-world, hands-on work taught me practicality and usability. Two top-50 Fortune 500 companies exposed me to very large, data-intensive solutions. I’ve enjoyed working successfully with international coworkers in each of these settings. I’ve especially gained an appreciation and love for data: analysis, ETL, and quality. Building new solutions excites me, and I’m also very happy and comfortable digging into legacy systems.

FORMAL EDUCATION

Doctoral Studies and Research “*abd*” in **Programming Languages** Indiana University
Research: Parallelism Minor: History and Philosophy of Math and Science
Master of Liberal Arts in Extension Studies Harvard University
Field: **Mathematics for Teaching** Focus: Classical Mathematics
Bachelor of Science in Computer Science and Engineering Massachusetts Institute of Technology
Concentration: Artificial Intelligence Humanities: Science, Technology and Society

DEVELOPMENT SKILLS (Full Stack)

Over 20 years of extensive Java experience, C/C++, SQL, Linux and Windows, and networking infrastructure. Other technologies include web frameworks, ORMs, DevOps tooling, agile methodologies, and cloud systems.

Areas of expertise include Application logic, Data Analysis, Data engineering, Distributed processing, Networks, Operating Systems, Scientific computation, Automation.

Git, JavaScript, Spring, Power BI, Azure, Heroku, IaaS, Functional Programming

I have taught thorough, introductory and advanced, computer science courses in middle schools through grad level.

PRIMARY CAREER EXPERIENCE

Senior Manager (Application Manager) (2021-2022) **Procter & Gamble, Cincinnati, OH**

Tech expert embedded in the **Corporate Legal Department**, leading research/analysis/implementation/validation of **all data integrations**. Each one involves multiple business departments and IT teams, and multiple vendors.

Project Manager for end-to-end management of data integrations supporting legal applications. Enhanced 2 of 4 existing integrations. Created 7 new integrations, leveraging new sources and new ETL tools. Reduced internal delays. Met all timelines of external business partners. Helped oversee and ensure downstream integration processes were functioning in time for go-live. Improved internal documentation of team’s data integrations.

Application Manager for 14 applications: managed feature enhancement, change management, and support. Worked with 8+ vendors variously for custom development, SaaS configuration, and/or on-going support. Planned and supported 3 migrations of legacy systems to internal/external cloud systems. Planned and supported 6 new SaaS solutions, each with a mix of international user bases and local processes. Contract management.

Application Single Point of Contact for totality of 29 departmental applications, public websites. Responsible for asset management, application governance & registrations, and infosec compliance & risk management.

Developer III → Developer IV → Senior Data Engineer (2015-2021) **The Kroger Co., Cincinnati, OH**

Senior Developer for **Kroger’s largest codebase** of internally-built software, the Enterprise Labor Management System (ELMS), a monolithic Java web application. “*Labor is our number one controllable cost.*” ELMS provides an individualized, weekly labor schedule for 2,500 stores, transmitting name-less shift schedules to a separate scheduling system. Historical analysis ingests data from a large number and variety of sources to forecast sales, customer, and item movement. Businessmen from corporate levels down to store managers use over 250 web pages for reporting and also to configure each week’s inputs and outputs. Continued on next page...

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Subject matter expert and **technical lead** for two other Store Labor web applications, which I maintained and enhanced using Kroger's standardized software stack. These two systems provide additional forecasting, planning, and reporting tools for cashiers and stocking teams, respectively. I also piloted the replatforming of these two applications as testbeds for particular types of cloud migrations into Pivotal Cloud Foundry and Azure.

As member of the larger **Store Labor team**, provided rotating, 24-hour **Level 3 support** for the above three systems as well as for Kroger's store scheduling system supporting over 400,000 hourly employees. Key member of requirements-gathering team to choose replacement of scheduling system after vendor announced end of life. I was actively involved in technical negotiations with new vendor during multi-store proof of concepts.

Mentored and directed a college intern. I have a long-time, strong record of **intern productivity** and recruitment.

Led discovery work for multiple data integration efforts in reaction to new COVID policies in 2020. Created API pipelines to connect multiple legacy systems with new e-commerce functionality at a rapid pace, including this team's first two direct connections to off-site, external partner companies.

Advisor and CTO**Mobotory Technologies, Santa Monica, CA**

Mobotory is a software startup applying serious artificial intelligence and mobile technologies to the insurance industry, especially to improve the quality and cost of worker's compensation claims and general liability policies. I started as a software contractor, served as CTO for two years, and now remain involved as an active investor and advisor. I onboard most of our new technical hires, and I support our relationships with a few key customers.

Software Developer and Project Engineer**Kintronic Laboratories, Bristol, TN**

Worked closely with radio-frequency electrical engineers to build in-house software applications. Saved valuable design time and increased the accuracy of engineering proposals by digitizing niche-market, paper-and-pencil calculations. Further increased usefulness of results by integrating with parts database and price estimation tools. Users self-report this critical, daily-use software to be "*bullet-proof*," nearly **bug free for over twenty years**.

Created new antenna testing capability by retrofitting a used anechoic chamber with new motors, sensors, and mounting furniture. Programmatically controlled an HP network analyzer for signal generation and measurement. Developed data analysis applications from scratch. Incorporated MATLAB libraries for improved graphical visualization and additional post-processing functionality. Added capability to safely monitor, control and automate from remote locations. Custom-ordered fast (< 7 nanosecond) switches for direct time-domain analysis.

Combined and integrated multiple open-source technologies to replace expensive, outdated GIS software. New system predicts AM radio transmission patterns worldwide, uses multiple propagation models, allows for various means of antenna modeling, and performs multi-site interference studies. Codebase later served as the subject for academic research in parallelism.

Software Contractor**Private Client**

Designed and built a 10,000-line proprietary Java application integrating with multiple third-party websites and files. Modular system uses common logic and data structures to power multiple UIs. Codified unique internal processes to prepare for business expansion into a new online presence, providing for growth in customer base. **Hired and managed sub-contractor** to develop attractive customer-facing UI to augment internal interfaces.

High School Teacher of Math, Physics, and Computer Science**The Academy at King, Bristol, TN****Senior Software Engineer** and Director of Military Relations**DropFire, Inc., Cambridge, MA**

Developed software and hardware solutions for mobility and data interoperability in the public safety sector.

Heavily involved in prototyping a patient-tracking system for large-scale emergency response. Assisted in successful live, multi-state, multi-agency testing of functional prototype.

Focused development on synchronization of dispersed databases on varied platforms using J2SE and J2ME. Designed and matured consistency-checking system to resolve discrepancies across user-inputted data and automatically generated data. Built validators to conform large dataset to relevant government format standards.

Communications and Information, Engineer**Captain, USAF, 1st Combat Communications Sq, Germany**

Planned and deployed tactical communications systems overseas, interoperating with over forty coalition nations.