

# CAELAN BOROWIEC

Principal Software Engineer · Full-Stack · Automation & Analytics

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🌐 caelan.dev

📍 Pittsburgh, PA

## PROFESSIONAL SUMMARY

Principal Software Engineer with 14+ years' experience owning production systems across data, automation, and integrations. Specialized in event-driven workflows, automated data collection, analytics, secure integrations, and hardware-to-software interfaces that replace manual processes. Trusted technical owner collaborating with operators, stakeholders, and executives to deliver resilient systems in complex environments.

## CORE COMPETENCIES

**Systems & Full-Stack Engineering:** Full-stack development (C-family, JavaScript, Python, PHP, SQL, LUA), workflow automation, internal tooling, data collection/analytics, reliability engineering, applied AI, secure system design.

**Operations & Integration:** Production ownership, event-driven systems, human-in-the-loop and hardware-in-the-loop workflows, sophisticated e-commerce platform extensions and data validation.

**Platforms / Tools:** Shopify, Docker/Podman, GitLab CI/CD, AWS, GCP, StatusCake, automated monitoring and alerting.

## PROFESSIONAL EXPERIENCE

### Principal Software Engineer — FM Expressions

June 2019 - Present | Pittsburgh, PA

- Owned end-to-end event-driven automation and analytics across manufacturing and fulfillment platforms, replacing manual processes and enabling data-driven staffing, planning, and forecasting.
- Served as primary technical owner for internal workflow systems, processing over 85% of all orders in Q3-Q4 2025.
- Researched, trained, and deployed AI-powered customer support, providing 24/7 coverage with human escalation.
- Migrated custom sites and internal analytics to the Shopify cloud, supporting e-commerce and sales reporting.

### Software Engineering Consultant — Unikrn

January 2012 - June 2021 | Darlinghurst, AUS

- Built secure client-server software with fraud-resistant mechanisms in a partially-untrusted, distributed environment.

### Software Engineer — University of Pittsburgh

May 2012 - June 2019 | Pittsburgh, PA

- Developed external and internal software systems in an academic environment, while mentoring junior developers.
- Designed full-stack apps supporting research and administrative workflows working directly with faculty stakeholders.

## LEADERSHIP & IMPACT — FM EXPRESSIONS

### Operational Visibility & Automation

Introduced automated data collection, reporting, and event-driven workflows across manufacturing and fulfillment operations, replacing manual coordination with integrated systems.

### Applied AI & Customer Experience

Deployed AI-powered customer support systems that automated routine inquiries and expanded availability to 24/7/365 while preserving seamless escalation to human agents.

### Cross-Functional Technical Ownership

Partnered with operators, managers, and executives to deliver secure, resilient systems across manufacturing, analytics, and customer platforms, setting architecture and process standards.

## OPEN SOURCE & COMMUNITY

### Panelist — Tech Elevator Software Bootcamp

Provided insights into the software engineering industry for students preparing for careers in tech.

### Open-Source Developer & Code Reviewer — AlliedModders Developer Community

Published 61+ open-source projects for the Valve Source Engine. Reviewed community code for quality and security.

## EDUCATION

### Computer Technology, Web Publishing, AAS (4.0 GPA) — WCCC

2011 - 2014 | Pittsburgh, PA