Brendan McSweeney

Greater Portland, Maine, USA • bmcswee@gmail.com • github.com/bmcswee

SUMMARY

Staff software engineer with hands-on experience architecting and shipping production agentic AI systems, built on a deep foundation in enterprise Java backend development. Specializes in large-scale fintech platforms across the banking, payments, and financial operations domains, with a track record of leading complex systems from concept to production.

SKILLS

AI Tools: n8n, GitHub Copilot, Kiro, OpenCode, LiteLLM

Languages: Java, Kotlin, TypeScript

Frameworks: Spring Boot, Micronaut, ExpressJS

Services: AWS, Azure, PostgreSQL, MongoDB, GitHub, GitLab, Docker

EXPERIENCE

Staff Software Engineer — BILL

Remote | March 2023 – Present

Serves in a broad engineering role with a primary focus on AI integration, driving agentic systems and backend infrastructure across BILL's financial operations platform.

Accomplishments

- Architected and led engineering of BILL's first customer-facing agentic AI — a production multi-agent system built on n8n that enables customers to perform self-service operations in natural language, including payment status, check reissuance, stop payments, and bank account verification. Designed a domain-partitioned subagent architecture using multiple LLMs balanced for latency and cost, achieving a self-service resolution rate exceeding 40% — measured as customers requiring no further support contact within one week of their interaction.
- Identified business need and independently architected, designed, and implemented BILL's continuous balance retrieval system using the Plaid API — replacing a one-time-at-connection model with cost-effective ongoing updates. Delivered cashflow intelligence to customers across BILL's AP/AR platform and provided Risk Ops with a previously unavailable real-time data signal critical to their operations.
- Upgraded the entire FP&A platform from Spring Boot 2 to Spring Boot 3 using a mix of Kotlin and Java.
- Made improvements to SQS implementation resulting in service-specific cost decreases of over 50% and greatly improving testability.
- Authored and implemented company-wide RFC for automating dependency updates in JVM software projects.

Senior Software Engineer — treXis

Remote | November 2021 – January 2023

Contributed to a white-label microservice-based backend banking platform serving community banks and credit unions, built on Java / Spring Boot, AWS, Azure, and Kubernetes.

Accomplishments

- Built and extended Java / Spring Boot microservices leveraging ActiveMQ for event-driven inter-service communication.
- Developed integrations with core banking platforms including FIS Fiserv and third-party payment providers including Payveris and Payrails, extending platform capabilities for client institutions.
- Deployed and operated microservices on Kubernetes across AWS and Azure environments.
- Built and maintained CI/CD pipelines using GitHub Actions and Azure DevOps.

Software Development Engineer 2 — WEX

South Portland, Maine | May 2019 – November 2021

Maintained and extended WOLNP (WEX Online New Platform) — the core customer-facing platform powering WEX's fleet card business, enabling commercial fleet managers to manage card issuance, track mileage, and reconcile fuel and service costs across their vehicle fleets.

Accomplishments

- Took a leading role in the module-by-module migration of WOLNP from Spring Webflows to a modern Angular 11 frontend with Java Spring REST backend — a comprehensive modernization initiative for a mission-critical enterprise platform.
- Designed and implemented a hierarchical access control system enabling fleet managers at parent companies to assign and manage permissions across sub-organizations, accommodating complex multi-tiered fleet structures such as nationwide operators with regional offices.
- Created a complete CI/CD system using Azure DevOps, enabling rapid and efficient testing and deployment across the platform.

Software Development Intern — WEX

South Portland, Maine | Summer 2018

Contributed to WOLNP as part of a summer internship, implementing fixes and feature improvements across the platform's Java / Spring backend.

Accomplishments

- Implemented REST services in backend systems using Java with Spring framework.
- Improved application accessibility for users relying on screen reading software, broadening the platform's usability.

Software Developer — Auto Europe

Portland, Maine | January 2015 – August 2017

Developed multiple software tools for use in the company's three worldwide call centers.

Accomplishments

- Served as project lead on a brand-new internal MEAN stack application (Angular 2) for car rental bookings across worldwide call center operations — bringing it from blank-slate to full deployment in under 18 months, fully replacing a 20-year-old legacy system.
- Owned full production and development infrastructure for the company's first MEAN application, designing and deploying stacks from scratch on CentOS hosts.
- Independently designed and developed a GPS inventory management system integrating with FedEx using Java, Vaadin framework, and the Shippo API.

PERSONAL PROJECTS (available at github.com/bmcswee)

- Built a machine learning model for predicting vehicle details from VIN, including scraping and curating the training dataset from scratch.
- Designed and implemented an 8-bit CPU (8086-like) on an FPGA board using Verilog.

EDUCATION

University of Southern Maine — Portland, Maine

Bachelor of Science, Electrical Engineering with Computer Engineering Focus

2019

Returned to university full-time 2017–2019 to complete degree after several years of professional software development experience.