

Julie Bosworth

SOFTWARE DEVELOPER

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Work Experience

American Federation of Musicians and Employers' Pension Fund

SOFTWARE DEVELOPER

New York, NY
Nov. 2024 – Present

- Build and maintain full-stack features for MAX, an enterprise pension platform serving 30,000+ union musicians.
- Develop staff-facing tools in Visual Basic, including an address-conflict detector that flags when an employer's address already appears on another record.
- Develop and maintain SQL stored procedures, tables, and triggers for MAX's pension management workflows.
- Build and schedule JAMS jobs for recurring workflows, including a monthly employer payment reminder that attaches agreement documents and logs categorized delivery failures.
- Built an engagement payment reminder job estimated to save staff roughly a week of manual email processing per month.
- Updated the benefits application to capture applicant type for dual-eligible participants.
- Built a direct deposit self-service portal in Visual Basic, Java, and SQL, covering routing number validation, image upload, SSRS PDF generation, and automated email and work request management.

FAST Enterprises

SOFTWARE IMPLEMENTATION CONSULTANT

New York, NY
Sep. 2020 – Jul. 2024

- Implemented features for a business tax system that collects over \$1B a year for the NYC Department of Finance, working directly with client stakeholders to gather requirements.
- Wrote SQL queries surfacing business metrics from the NYC DOF tax database, producing reports consumed directly by Finance stakeholders.
- Tested and maintained features across collection and tax-return processing workflows.
- Replaced a manual multi-hour review with a nightly job that detected missing tax files, recovered and processed them, and emailed staff a status report.

Projects

Pokepeek

FULL-STACK POKÉMON SEARCH PLATFORM

pokepeek.juliebosworth.com
Jan. 2026

- Built a full-stack Pokémon search platform in Next.js and TypeScript that visualizes PokéAPI data with interactive charts.
- Wrote Playwright end-to-end tests covering desktop and mobile flows, and deployed the site on Vercel.
- Shipped a stat-distribution explorer and a type-matchup analysis page, using Claude Code to iterate on the UI.

Next Rec

CROSS-DOMAIN MEDIA RECOMMENDATION ENGINE

next-rec.juliebosworth.com
May 2026

- Built a media recommendation engine with a Next.js/TypeScript front end and Python/FastAPI backend, using OpenAI embeddings to rank recommendations by semantic similarity.
- Applied scikit-learn's k-means clustering to group similar media into themes and auto-labeled each with GPT-5 mini.
- Built a labeled test set of known cross-domain matches and used it to compare embedding inputs, raising top-1 recommendation accuracy from 35% to 55%.
- Built an interactive WebGL map of the catalog's embedding space, iterating on the UI with Claude Code.
- Migrated the backend from GCP Cloud Run to Vercel.

Education

Georgia Institute of Technology

M.S. IN COMPUTER SCIENCE

Remote
Sep. 2025 – Present

University of Massachusetts Amherst

B.S. IN COMPUTER SCIENCE & PSYCHOLOGY

Amherst, MA
May 2020

Technical Skills

Languages

Python, Java, JavaScript, TypeScript, Visual Basic, SQL, HTML, CSS

Frameworks & Libraries

React, Next.js, FastAPI, Flask, scikit-learn

Databases

PostgreSQL, SQL Server

Tools & Platforms

Git, Docker, AWS, GCP, Vercel, Playwright, OpenAI API, Claude Code