

Michael (Andy) Hayworth

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Senior software engineer with 5+ years building full-stack platforms in Outsystems, Go, PHP, and TypeScript. Experience leading teams, architecting microservices, and delivering to 1M+ user scale. Currently pursuing an M.S. in Computer Science with a focus on computational data science.

EXPERIENCE

Senior Software Engineer

Nov. 2024 – Present

Wodify Technologies LLC

Remote

- Full-stack contributor driving feature delivery, code review, and technical decision-making on a wellness business management platform serving 1M+ monthly users.
- Eliminated account impersonation vulnerabilities across 5+ applications by architecting a centralized JWT authentication service adopted in 10+ feature implementations.
- Introduced a JavaScript event library that eliminated complex event chain propagation across OutSystems components, enabling direct component communication regardless of nesting depth; widely adopted as the platform standard.
- Pioneered a data fetching pattern that reduced OutSystems server request payloads by up to 8x by eliminating unnecessary variable serialization, while preserving existing data loading behaviors; adopted by immediate team with platform-wide rollout underway.

Lead Software Engineer

Nov. 2023 – Nov. 2024

BAM Technologies LLC

Remote

- Headed a team of engineers in the development of an internal HR application platform including anonymous feedback delivery and analysis, time-tracking, and talent management tools.
- Supported the company's efforts in achieving a CMMI Level 3 certification by rapidly delivering a software platform in 6 months, demonstrating it to over 250 employees.

Software Engineer

May. 2022 – Nov. 2023

BAM Technologies LLC

Remote

- Developed an HR software platform for the U.S. Air Force by collaborating with Scrum teams in an Agile work environment using Azure DevOps.
- Spearheaded the initial integration of AWS into a .NET microservice architecture enabling S3 document storage and SQS/SNS pub-sub event processing.

Student Applications Developer

Nov. 2019 – May 2022

Kent State University

Kent, OH

- Collaborated with faculty to develop a full-stack application for remote research material delivery, demoing progress to stakeholders to iterate on the solution.

EDUCATION

Kent State University

Kent, OH

Master of Science in Computer Science, Computational Data Science Concentration

Aug. 2023 – Present

- Relevant coursework: advanced database system design, advanced operating systems, data mining techniques, artificial intelligence

Kent State University

Kent, OH

Bachelor of Science in Computer Science, Game Programming Concentration

Aug. 2019 – May 2022

- Relevant coursework: data structures, algorithms, design patterns, software engineering, database system design
- Served as secretary and lead programmer for Animation and Game Design Club

PROJECTS

wodify-go | *Go*

- Designed an idiomatic, zero-runtime-dependency Go SDK for the Wodify REST API featuring a configurable, type-safe HTTP client, automatic retries with exponential backoff, and typed/unwrappable errors.
- Engineered a custom mock-server test harness, unlocking 100% statement coverage.
- Authored complete developer documentation and tooling including a README with end-to-end usage examples and CI quality badges, a CONTRIBUTING guide, and runnable examples.

critiquefi | *Go, Docker, AWS, Postgres*

- Built a Go API for rating and logging all different forms of media (movies, games, books, etc.), providing unique insights into users' media consumption.
- Stood up a clean domain-separated handler/service/store architecture with interface-based dependency injection for testability and maintainability.
- Implemented JWT auth with refresh token rotation, AWS SES integration for transactional emails, and PostgreSQL migrations and queries.

swagscript | *Go*

- Built SwagScript, a custom programming language and interpreter from scratch in Go, supporting variables, functions, conditionals, and an interactive shell.

michael-hayworth.com | *Laravel, SQLite, Tailwind, AWS*

- Shipped a minimalistic personal portfolio site with administrative functionality
- Deployed to an AWS EC2 instance using Laravel Forge

dynastatracker | *Laravel, Vue.js, Inertia.js, MySQL, Tailwind*

- Designed a normalized multi-level sports data model with cross-season player progression tracking, capturing full box scores across 50+ per-game statistics.
- Built interactive game data visualizations with ApexCharts and Vue.js, with derived statistics computed server-side and surfaced through an Inertia.js SPA architecture.

pylibsrcml | *Python, C*

- Authored and published pylibsrcml to PyPI during undergraduate research — a Python library that wraps the libsrcml C source code analysis tool via ctypes, making source code analysis accessible to Python developers and researchers.

mushroom-data-mining | *Python, scikit-learn, Flask, pandas*

- Trained and compared three machine learning models to predict mushroom edibility from physical characteristics, achieving 100% accuracy with the random forest classifier.
- Analyzed feature importance to prune the dataset to its most predictive attributes, then shipped a Flask web interface allowing users to input mushroom characteristics and receive real-time edibility predictions.

artificial-intelligence | *Python, NumPy, PyTorch*

- Implemented five machine learning algorithms from scratch in Python — including a configurable multi-layer neural network, Hidden Markov Model, K-means clustering, and linear regression — without relying on ML libraries.

CERTIFICATIONS

Outsystems: Associate Developer (O11 & ODC), Architecture Specialist (O11), Mobile Developer Specialist (O11 & ODC), Front-end Developer Specialist (O11 & ODC), Web Developer Specialist (O11)

TECHNICAL SKILLS

Languages: Go, PHP, JavaScript, Typescript, Python, SQL (MySQL, PostgreSQL), C#, C/C++, HTML, CSS

Frameworks: Laravel, Vue.js, React, Outsystems (11 & ODC), Tailwind, Livewire, .NET Core

Developer Tools: Git, AWS, Jira, Visual Studio, Azure, VS Code