

TAMARA DOWIS | SOFTWARE ENGINEER

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I'm the kind of person who carries logic puzzles in my bag and gets genuinely excited when something breaks, because it means I get to figure out how to fix it. Before I started coding, I worked around the world in roles that taught me to listen closely, adapt quickly, and think in systems. I managed finance operations at Merrill Lynch, supported leprosy-affected communities in India, and taught science in Mexico and China. Those experiences shaped how I approach software - with curiosity, care, and a deep respect for tools that help people connect and act with clarity. As a software engineer, I love learning new tools and solving complex problems. I've built backend systems with Rails, Node.js, and TypeScript, worked on civic data pipelines and APIs, and helped turn messy data into clean, usable formats that support better decisions. Currently I am growing my cloud and DevOps skills while preparing for the AWS Developer Associate exam.

TECHNICAL SKILLS

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|------------------------------------|---------------------------|---|
| ● React / Next.js | ● Node.js / Express | ● Agile Tools (Jira, Confluence) |
| ● Ruby on Rails | ● JavaScript / TypeScript | ● API Documentation (Swagger, Postman) |
| ● SQL / PostgreSQL | ● REST APIs | ● Automated Testing (RSpec, Jest, Capybara) |
| ● Caching (Redis, node-cache) | ● OOP / Design Patterns | ● Authentication (JWT, Passport, OAuth2) |
| ● CI/CD Pipelines (GitHub Actions) | ● Docker (basic) | ● Debugging & Performance Troubleshooting |

HIGHLIGHTED PROJECTS

Artisan Marketplace

Ruby on Rails | PostgreSQL | RSpec | Capybara | SimpleCov | FactoryBot | BCrypt

A multi-tenant Rails e-commerce platform with role-based access control and automated testing workflows.

- Architected multi-tenant e-commerce platform with Rails MVC architecture, implementing role-based access control and secure authentication patterns for admin and artisan user hierarchies.
- Designed and maintained relational data models using Active Record, supporting complex business logic and reliable query performance.
- Implemented modular application architecture with namespaced routing, service objects, and maintainable code patterns to support long-term scalability and team collaboration.
- Integrated conditional business logic for discount pricing, enabling time-based promotional rules and clear test coverage of edge cases.

Windy Civi

Python | GitHub | JSON | CLI Tools | Logging | Error Handling | Modular Architecture | Data Validation

A local civic tech initiative (Chi Hack Night) to improve public access to state legislative data across the U.S.

- Built modular Python data system with logging, recovery prompts, and timestamped output to process multi-session data.
- Standardized ETL pipelines to transform raw legislative data into Open States JSON format, ensuring consistent data validation and enabling horizontal scaling across multiple state jurisdictions.
- Contributed to a public-interest open-source project in collaboration with civic technologists, helping expand access to legislative data for educators, researchers, and the general public.
- Built robust error handling and validation with structured logging and automated recovery to prevent silent failures in PDF parsing and improve pipeline reliability.

Adventure Life REST API

Node.js | TypeScript | Express | PostgreSQL | Knex | Objection.js | Postman | Jest | Swagger

REST API exposing structured, relational city data via modular, testable endpoints

- Built RESTful API with TypeScript and Express, applying the DAO pattern and modular service design to refactor a legacy codebase into a clean, scalable backend system.
- Modeled complex city relationships using PostgreSQL and Objection.js, optimizing queries for fast and reliable data access.
- Wrote Swagger documentation and a full Jest test suite to ensure endpoint accuracy and support long-term developer usability.
- Incorporated async workflows and service abstraction to lay the groundwork for distributed systems and event-driven architecture.

HIGHLIGHTED PROFESSIONAL EXPERIENCE

Science Educator | International & U.S. Schools

07/2016 - Present

- Designed and delivered inclusive science curricula in IB and project-based environments in Mexico, China, and the U.S., fostering critical thinking and global citizenship.
- Gained experience breaking down complex ideas, working across roles, and iterating based on feedback.
- Collaborated across cultures and disciplines to solve complex problems, communicate clearly, and adapt quickly.

Project Manager | SolarAid

07/2008 - 06/2009

- Led a solar energy initiative that distributed over 500,000 lights across Kenya, improving daily life for more than 2 million people.
- Managed a 28-person team across franchise operations and a local manufacturing plant, overseeing planning, logistics, and reporting.

EDUCATION & CERTIFICATIONS

AWS Certified Cloud Practitioner | Amazon Web Services

07/2025

Back End Engineering Certificate | Turing School of Software Design

06/2022

Bachelor of Science With Honors in Biology Ed | Kennesaw State University

05/2015