

TAMARA DOWIS

SOFTWARE ENGINEER

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ABOUT

Lifelong learner and former science educator turned software engineer, driven by curiosity and a passion for collaboration. I bring strong analytical reasoning, team leadership, and a commitment to building scalable, meaningful solutions that positively impact communities. I'm resourceful and self-directed, often diving deep to troubleshoot and learn without needing to rely on others.

TECHNICAL SKILLS

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|---|-----------------|---|
| • Node.js / Express | • Ruby on Rails | • JavaScript / TypeScript |
| • SQL / PostgreSQL | • REST APIs | • Object-Oriented Programming |
| • Agile Development | • Git & GitHub | • API Docs (Swagger) |
| • Authentication (JWT, Passport, BCrypt) | | • Caching (Redis, node-cache, Kaminari) |
| • Test-Driven Development (RSpec, Capybara, Jest) | | • Project Management & Team Leadership |
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PROJECTS

SciScope

Node.js | Express | PostgreSQL | Objection.js | Redis | Jest | Winston | Passport | JWT | node-cache

A science news aggregator API with bookmarking and analytics features.

- Designed a modular RESTful API integrating external science news via the NewsAPI.
- Implemented user-defined bookmarks and bookmark groups with full CRUD functionality.
- Built caching with node-cache to reduce redundant API calls and improve performance.
- Created advanced SQL queries and pagination to support future analytics features.
- Wrote comprehensive Jest tests for routes, services, and error handling.

Artisan Marketplace

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

A multi-role e-commerce platform enabling admins and artisans to manage products and discounts.

- Developed role-based authentication and authorization with a single login path.
 - Built admin-facing tools to create, edit, and deactivate artisan accounts.
 - Implemented artisan dashboards with full product and discount management.
 - Applied complex Active Record queries and scopes for real-time discount logic.
 - Used namespacing, advanced routing, and thorough RSpec/Capybara testing for maintainability.
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SELECT PROFESSIONAL EXPERIENCE

Science Educator | Shen Wai International School - American School Foundation - SCHS - EK-12 07/2016 - Present

- Designed and delivered inclusive science curricula in International Baccalaureate (IB) and project-based learning environments, fostering critical thinking and global citizenship.
- Championed the integration of technology in the classroom by conducting quarterly teacher training sessions on educational technologies. Successfully equipped over 100 teachers with the skills to effectively utilize these tools in their teaching.
- Currently working as a remote contractor, teaching science to middle and high school students while actively developing software engineering expertise.

Project Manager | SolarAid

07/2008 - 06/2009

- Initiated and led a solar access program responsible for the distribution of over 500,000 solar lights, resulting in a positive impact on the lives of more than 2 million individuals.
 - Provided strategic leadership in franchise operations and manufacturing plant management, directing a 28-member cross-functional team in solar manufacturing.
 - Directed logistical operations, facilitated team development, and instituted process improvements at remote locations through strategic alliances with non-governmental organizations and regional stakeholders.
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EDUCATION

Back End Engineering Certificate | Turing School of Software Design

06/2022

Rigorous 7-month ACCET accredited program, accumulating a total of 1500+ project hours.

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

05/2015