

ADAM ZAATAR

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Education

Bowdoin College

Bachelors of Arts, Computer Science & Economics, Minor in German

Brunswick, ME

Expected May 2027 GPA: 3.46

Experience

Student Advisor | Bowdoin College CS Dept. | Brunswick, ME | 2024–Present: Evaluated tenure-track faculty candidates through structured interviews and research presentation reviews; provided detailed written feedback to inform departmental hiring decisions.

Web Staff | The Bowdoin Orient | Brunswick, ME | 2024–Present: Maintained and optimized the student newspaper's website (**HTML, CSS, JavaScript**); analyzed site traffic to improve content placement and user engagement; supported backend updates and plugin integration.

Founder & President | Bowdoin Martial Arts Club | Brunswick, ME | 2024–Present: Founded Bowdoin's first martial arts club; secured \$800 in funding, recruited 30+ active members, and built inclusive training programs emphasizing safety and growth.

Fellowships and Research

Gibbons Summer Research Fellowship (Funded) — Selected for a competitive, funded fellowship to evaluate financial literacy education. Designed and tested curricula for Bowdoin and local schools, producing an initial study and a second-phase report that combined econometric modeling with experimental design.

Who Rules? Lobbying's Grip on Democracy — Authored a behavioral economics and political economy paper on corporate lobbying's influence in U.S. policymaking. Applied **Lyon's Corporate Political Responsibility framework** to distinguish legitimate from irresponsible lobbying and proposed concrete reforms to improve transparency and CSR–political alignment.

Greedflation Analysis — Conducted empirical analysis of post-COVID inflation by applying **OLS regression** to corporate profit margins and producer price indices; quantified the extent of profit-driven inflationary pressures.

Selected Projects

Bowdoin Marketplace — Building and scaling a **TypeScript monorepo** marketplace platform (Next.js, Prisma/PostgreSQL, Redis, AWS SES) for authenticated campus/community buying, selling, and peer messaging. Designed pnpm-based monorepo architecture with versioned internal packages; implemented secure authentication flows (Okta SSO + passwordless email) with RBAC; added Redis token-bucket rate limiting and hardened request validation with Zod + OpenAPI schemas. Shipped transactional email pipelines, structured audit logging, and full observability with pino + OpenTelemetry. Delivered CI/CD with deterministic builds, and typed configs.

Vector — Designing a next-generation **two-factor authentication system** with a SwiftUI iOS client and **Vapor/Swift backend**. Implemented token generation/validation, email OTP delivery (AWS SES), session handling with expiry + replay protection, and modular API middleware for rate-limiting and structured error handling. Backed by PostgreSQL with migrations and unique indexing. Built test-driven with end-to-end integration suites; SwiftUI frontend in progress for App Store release.

Cutaway — iOS app for synchronized multi-angle video recording and playback, built with **SwiftUI and AVFoundation**.

PalPrep — Advocacy platform built with **Next.js 15, Prisma/PostgreSQL, TailwindCSS, and Stripe**; integrates applications, donations, marketing, and a learning hub into one full-stack web platform.

Other Apps — **Twitter Clone** and **Instagram Clone** (real-time feeds, chat, media sharing via **Firebase + SwiftUI**) and **Investify**, a stock simulator with **live S&P 500 data** adopted in Bowdoin Economics coursework. Academic: **Calculator Software** and **Live Web Server**.

Skills and Certifications

Core Languages: Proficient in Java, Python, C, Swift, R, JavaScript/TypeScript, SQL; working knowledge of PHP, Go, Rust, Kotlin, Scala.

Libraries & Frameworks: Experienced with React, Next.js, Node.js, Express.js, Angular, Vue, Django, Flask, Spring Boot, Laravel, Vapor, Prisma, TailwindCSS, Bootstrap, shadcn/ui, Framer Motion.

Mobile & Databases: iOS development with SwiftUI, UIKit, Xcode; cross-platform experience with React Native and Flutter; database expertise across MySQL, PostgreSQL, MongoDB, Firebase/Firestore, SQLite, Redis.

Cloud, DevOps & ML — Skilled in deploying and scaling with AWS (EC2, S3, SES), Docker, Kubernetes, GitHub Actions, and CI/CD pipelines. Applied machine learning and data analysis using scikit-learn, TensorFlow, PyTorch, and econometric/statistical modeling.

Certification:

- *The Complete Foundation Stock Trading Course* (Udemy).
- *Artificial Intelligence A–Z 2025: Agentic AI, Generative AI, and Reinforcement Learning* (Udemy).