Michael Ball | Software Engineer, Educator

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Professional Experience

UC Berkeley EECS & Data Science — **Berkeley, CA**
Continuing Lecturer — *July 2025–Present*

UC Berkeley EECS & Data Science — **Berkeley, CA**
Lecturer — *July 2019–June 2025*

- Teach Data Science (DATA C88C, 500+ students/term), Software Engineering (CS169A/L), and CS Pedagogy (CS302); recruit, train, and manage 10–30 teaching assistants and tutors per semester
- Co-Director, EECS Summer Instruction (2022–2026): oversee ∼10 courses and a $100–250K operating budget per session, including hiring, payroll, and curriculum approval
- Principal/co-investigator on $150K+ in instructional-technology grants funding accessibility, autograding, and curriculum-modernization projects
- Member, Undergraduate Study Committee (2019–2024); Student Grievances Committee (2020–2023)

Gradescope (acquired by Turnitin, 2018) — **Oakland, CA**
Software Engineer — *2016–2021*

- Early engineer at a sub-15-person ed-tech startup through acquisition by Turnitin; transitioned to part-time in 2019 to focus on lecturer role
- Architected web-accessibility infrastructure to meet WCAG 2.0/2.1; built automated front-end accessibility testing and trained Turnitin's wider engineering organization
- Designed AWS-hosted data pipelines for product analytics, onboarding, and growth experimentation
- Contributed to autograding infrastructure design and partnered with the design team on new platform features

Software Projects

Snap! — `snap.berkeley.edu`
Co-architect of the open-source cloud platform powering this blocks-based visual programming language used by 500K+ educators and students worldwide; system serves 5M+ stored projects. Contribute to the core JavaScript IDE and own project-storage, sharing, and authentication services.

Flextensions — `github.com/berkeley-cdss/flextensions`
Technical lead and architect of a Rails web application that automates assignment-extension requests, approvals, and Canvas LMS integration. Scaled from pilot to 10,000+ student enrollments across two semesters; designed deployment infrastructure and mentored 12+ undergraduate engineers shipping production code.

Beauty and Joy of Computing (BJC) — `bjc.berkeley.edu`
AP Computer Science Principles curriculum reaching tens of thousands of students annually. Maintain technical infrastructure, drive curriculum development, and provide engineering consulting across the open-source toolchain.

Technical Skills

Languages: JavaScript, Ruby, Python, SQL, Bash, HTML, CSS, Snap*!*

Tools: Rails, React, AWS, Heroku, Terraform, PostgreSQL, Git, accessibility testing

Practices: System architecture, technical mentorship, web accessibility (WCAG 2.1, 2.2 A/AA/AAA), DevOps

Education

UC Berkeley, College of Engineering
M.S. Computer Science — *2015–2016*

UC Berkeley, College of Letters & Sciences
B.A. Computer Science — *2011–2015*