

# Elizabeth Parnell

Software Engineer

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Software Engineer with a strong computer science foundation and experience working with ORM frameworks and relational databases (DB), focused on building efficient, maintainable, and data-driven applications.

## Work Experience

### AI Studio Coach

Jul 2025 - Present

*Break Through Tech at Cornell | Ithaca, NY*

- Act as Tech Lead between companies and student teams, translating business needs into technical requirements, tickets, and deliverables aligned with ML project goals.
- Designed and coded Python ML pipelines for partner companies, applying scikit-learn, pandas, and NumPy to build reproducible workflows and demonstration models.
- Scoped datasets, validated features, and prototyped ML demos to showcase best practices in EDA, preprocessing, and evaluation.
- Led Agile ceremonies, milestone planning, and backlog management, ensuring 6–7 teams delivered production-ready ML prototypes on time.
- Reviewed GitHub pull requests, enforced coding standards, and provided structured technical feedback to raise code quality and reproducibility.
- Facilitated cross-team collaboration with stakeholders via Slack, Notion, and GitHub to ensure project alignment and effective communication.

### Lead Instructor - Software Engineering

Apr 2021 - Dec 2024

*General Assembly | Boston, MA*

- Engineered production-grade web development projects using TypeScript, Python, and AWS; applied responsive design, Node.js, and MongoDB principles to reduce setup time by 80% and raise NPS from 64 to 78.
- Automated a GitHub Actions pipeline with built-in security checks, shrinking web-application-development feedback from 24 hours to 5 minutes and lifting assignment pass-rate 72% to 90% across six 30-student cohorts.
- Resolved 99% of live stack-trace errors in less than 5 minutes during MERN/Django labs, protecting demo delivery deadlines and sustaining a consistently high NPS rating.
- Spearheaded daily code-review clinics and peer coaching with high enthusiasm for 30-student cohorts, boosting technical-interview pass rates by 12%.
- Analyzed quiz and survey data to pinpoint concept gaps, then launched micro-lessons that decreased the withdrawal rate, resulting in a 92% student retention rate.
- Managed ten 12-week Agile sprints over three years of web application development, holding burndown variance  $\pm 5\%$  and achieving 100% on-time graduation for 30 students and five instructors.

### Software Engineer

Oct 2018 - Apr 2021

*Wayfair | Boston, MA*

- Optimized React/TypeScript front-end and PHP GraphQL backend for the checkout flow, cutting time to first-paint from 2.5 s to 1.8 s and boosting conversions by 6.4%.
- Refactored legacy gift-card refund logic into a Java microservice with Redis caching, cutting API latency by 35% and averting a projected 1.2 million dollar loss from over-refunded gift cards.
- Instrumented microservices with InfluxDB and Grafana dashboards with SLO paging, slashing MTTR from 45 minutes to 15 minutes during peak times and improving developer “time-to-insight”.
- Root-caused a database outage in the gift-card email path and shipped a hot-patch to production in less than 3 hours, averting a \$180k loss and restoring emailed gift cards.

- Integrated multi-currency payment gateways into Java microservices, launching checkout support in 3 new regions, and processing 120k transactions daily at a 99.99% success rate.
- Unified PHP & Java test suites in CI, raising coverage 30% to 85% and cutting post-release defects from 20+/mo to zero for six months.

## Volunteer Experience

### Class Mentor

Jan 2025 - Present

*CTD*

- Mentored 3–5 CTD students through weekly 1:1s and office hours, delivering personalized guidance and feedback on assignments.
- Helped students overcome technical blockers, deepen understanding, and stay on track—resulting in consistent progress and improved confidence across core concepts.