

Kate Bondarenko

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RELEVANT WORK EXPERIENCE

Tradeweb Markets

New York, NY

Assistant Vice President - Backend Engineer

Feb 2026 - Present

- Built high-throughput messaging for trading + market data: implemented Kafka producer smart batching/message splitting and a multi-threaded consumer framework with deterministic ordering, sustaining 100K+ msgs/sec ingestion and 10K+ msgs/sec order/executions events end-to-end; added Redis batched routing to reduce cross-system chatter by 30–60% under peak bursts
- Led rollout of 2 trading product groups (Treasuries + Munis) on the Sweep protocol, architecting and shipping 10+ major production features end-to-end and owning ongoing maintenance, production support, and iterative delivery with Product on a tight release cadence

Associate

Jan 2025 - Feb 2026

- Implemented Treasury Sweep service in a microservices architecture using TypeScript and NodeJS, integrating with Kafka and Redis pub/sub systems and automating Kubernetes deployments via ArgoCD enabling extensibility for other teams

Summer Technology Intern

Summer 2023, Summer 2024

- Migrated 2 monolith code bases into one NX repository, resolved over 130 conflicts modernizing code to align with TypeScript/Node.js best practices reducing build time by 57%
- Designed, implemented, and deployed to Kubernetes cluster an upgraded version of a core TypeScript service used by 12+ Tradeweb's applications for authenticating users that improved necessary schema validations for various JWT tokens

Lavner Education

New York, NY

Technology Instructor and IT Intern

Jun 2022 – Aug 2022

- Spearheaded courses in Machine Learning, App Development, Robotics, and FinTech for 25+ students aged 8-14

LEADERSHIP & ACCOMPLISHMENTS

Coding Team President

Hamilton College, 2022-2024

- Directed Hamilton team in ICPC Regional Contest and solved 3 problems, winning 1st place in undergraduate category
- Led team to first place in CodeGate Hackathon at Colgate University by developing an accessible AI recycling software

Mathletics President

Hamilton College, 2022-2024

- Organized team of 8+ students in weekly problem-solving sessions for the Putnam Mathematical Competition
- Designed strategic curricula to tackle 50+ advanced calculus, number theory, and combinatorics challenges annually

EDUCATION

Hamilton College, BA

Clinton, NY

Double Major in Computer Science, Mathematics (Honors); GPA: 3.74

January 2021 - December 2024

PUBLICATIONS

Generalized Quandle Polynomials and Their Applications to Stuquandles, Stuck Links, and RNA foldings 2024

- Accepted for publication in Open Mathematics *Ekaterina Bondarenko, Jose Cenicerros, Mohamed Elhamedi, Brooke Jones*

HACKATHONS

StudyRide for HackMIT

Cambridge, MA, *October 2023*

- Built campus carpool app with TypeScript backend, MongoDB storage and engineered ride-matching algorithm

AI TrashSort for CodeGate (1st Place)

Hamilton, NY, *November 2022*

- Built AI recycling classifier analyzing audio/visual inputs to determine waste class in Python using OpenCV and OpenAI

SKILLS

Languages: TypeScript, Python, C++, Bash, Java, SQL, Ruby, Closure, Go

Technologies: REST/GraphQL APIs, Docker, Linux, GitHub, MongoDB, Pandas, Prometheus/Grafana, ArgoCD

Interests: Classical piano, video games, learning languages, running, board games