

ANDREW TARRH

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OBJECTIVE

Senior software engineer specializing in scalable data infrastructure for ML/AI platforms, with 5+ years in designing and operating production systems at petabyte scale. Passionate about applying technical expertise to drive meaningful impact at mission-driven organizations.

PROFESSIONAL EXPERIENCE

Independent Contractor

Multiple Roles

September 2021 – Present

Remote

- Mercor: Computer Science Domain Analyst: Evaluated and improved LLM performance for code generation through expert feedback on programming prompts.
- WeVote: Software Engineer: Contributing to the development of UI components within a Node/React/Flux JavaScript application to enhance voter-facing features and internal tools. Contributed bug fixes and backend improvements to a Python/Django-powered API endpoints server, supporting reliable data access and platform stability across the stack.

Amazon Alexa AI

Software Developer Engineer II

September 2016 – September 2021

Cambridge, MA

- Designed and operated petabyte-scale data infrastructure across S3, Athena, Redshift, Airflow, and Elasticsearch to support large-scale ML training and data discovery.
- Led migration from monolithic Redshift warehouses to serverless data lake architecture, improving privacy controls and reducing annual costs by \$50K+.
- Built a secure cross-region data replication service with encryption-in-transit, enabling globally distributed model training workloads.
- Automated ML pipeline deployment using microservices and testing frameworks, reducing NLU model deployment failures by 75%.
- Partnered with scientists and engineering teams to improve reliability, testing, and operational standards across core ML infrastructure.
- Served as technical lead, security certifier, and operational excellence liaison while mentoring engineers across the organization.
- Founding member and club officer of Amazon's Toastmasters chapter, fostering a culture of communication, leadership development, and public speaking across the organization.

Amazon Client Support Services

Software Developer Engineer Intern

May 2015 – August 2015

Seattle, WA

- Built full-stack web app for subsidiary onboarding tracking with LDAP integration and BoM management.

Boston University, Harvard Extension School, Harvard Summer School

Course Assistant, Teaching Assistant

May 2015 – August 2015

Boston, MA

- Created course content, led labs, graded exams and assignments, and mentored students. Founding member of the undergraduate course assistant program, now staffed by close to fifty students.

EDUCATION

Boston University: 5 Year B.A. to M.S. Program

May 2016

Master of Science — Concentration: Computer Science

Bachelor of Arts — Concentrations: Computer Science & Astronomy

SKILLS & TECHNOLOGIES

Languages

Java, Python, BASH/shell scripting, SQL, HTML/CSS/JS

Data & Infra

ElasticSearch, Airflow, Spark, Hadoop, Flask, Redash

Cloud Services

AWS (e.g. S3, DynamoDB, RDS, Redshift, Lambda, EKS/ECS, Fargate, Kinesis)

Security & Compliance

KMS, IAM, VPC, CCPA, GDPR, Security Audits