ELEAH BURMAN

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EDUCATION

Northeastern University, M.S. Computer Science, Specialized in AI/ML | GPA: 4.0 *Expected December 2027*
Relevant Coursework: Algorithms, Web Development
General Assembly, Software Engineering Immersive (450+ hours) *June 2023*
New York University, B.F.A.

EXPERIENCE

Software Engineer, Tokio Marine HCC *June 2023 to Present*
New York, NY

- Build and maintain production Python data pipelines (Pandas, Camelot PDF extraction, Java) that ingest, clean, and transform financial and risk data from unstructured source documents, owning each pipeline from design through deployment.
- Build internal automation tooling for Excel-to-email reporting in Java and Pandas, designing the data model and logic from scratch so clients get accurate, on-time data in a regulated insurance setting.
- Find and fix pipeline edge cases through root-cause analysis and add checks that keep data quality reliable, then explain technical trade-offs to the Risk Manager, a non-technical business stakeholder.

MACHINE LEARNING PROJECTS

PawLog GitHub | Demo November 2026
Pet health tracker (React, Node.js, Express, MongoDB, Passport). Built logistic regression from scratch in JavaScript (no ML libraries) on 10 engineered features, reaching ~95% test accuracy; retrains from user feedback. Owned the health log API, auth, and ML pipeline (team of two).

Study Spot Finder GitHub | Demo October 2026
Campus study spot app (Node.js, Express, MongoDB, Leaflet). Built a KNN recommender from scratch that ranks spots by tag similarity and distance and explains each match. Owned the spots API, map, and filters (team of two).

ClinicalNote AI GitHub | Demo June 2026
Healthcare NLP app (Python, FastAPI, TypeScript, React, Tailwind CSS) that uses an LLM API with structured prompting to turn unstructured clinical notes into a defined, multi-field JSON schema, served through a FastAPI RESTful API.

DisputeIQ GitHub | Demo June 2026
End-to-end ML application (Python, FastAPI, Anthropic API, LightGBM, React). Designed the data schema and RESTful API contracts that connect LLM-based extraction from unstructured text and PDF evidence to a LightGBM gradient-boosted classifier, serving a confidence-scored JSON prediction to the frontend. Built and deployed solo.

Resume Keyword Matcher GitHub | Demo June 2025
NLP application (Python, Flask, NLTK, spaCy) that preprocesses text and scores resume and job compatibility using keyword extraction and fuzzy matching algorithms.

ADDITIONAL PROJECTS

Drag Queen Collector: Python/Django/PostgreSQL drag outfit catalog deployed on AWS. (GitHub | Demo)
Budget Buddy: Node.js/React/MongoDB multi-currency budget tracker with cookie and refresh-token auth. (GitHub)
DNInfo App / Skillzhunter App: Java GUI apps for IP data and job listings with XML/JSON/CSV I/O. (DNInfo | Skillzhunter)
Bite Buddy: React/Node/MongoDB group project using a third-party API to build custom recipe boards. (GitHub | Demo)
Caffeinate-Me: MEAN-stack app with Google OAuth for adding, reviewing, and discovering local cafes. (GitHub | Demo)

AWARDS

Computer Vision Hackathon, "Broadest Impact" Award *New York, NY*
Implemented Ultralytics object detection and FiftyOne in Python, detecting trees and cars across NYC.

Girls in Tech NYC Hackathon, 2nd Place *New York, NY*
Led front-end development (Python, Django) of EcoNeighbor, an app enabling communities to identify and act on local environmental issues via an interactive map.

SKILLS

Languages: Python, Java, SQL, JavaScript, TypeScript
Machine Learning: PyTorch, TensorFlow, Hugging Face, scikit-learn, LightGBM, NLP (spaCy, NLTK), computer vision (Ultralytics, FiftyOne), LLM integration and prompt engineering, recommendation systems, A/B testing
Data & Platform: Data pipelines and preprocessing (Pandas, Camelot), model serving via RESTful APIs (FastAPI, Flask, Express.js), API contract and data schema design, distributed systems, AWS, PostgreSQL, MongoDB
Practices & Tools: Unit and edge-case testing, data quality checks, documentation, code review, root-cause analysis, Git/GitHub, command line, React.js, Node.js, Django, deployment