

Early-career AI Software Engineer building applied AI systems that automate data-driven decision-making, ranking, and evaluation workflows. Leading back-end development and system architecture for an AI-driven mobile app and developing automated LLM benchmarking and verification pipelines at Snorkel AI. Experienced with feature pipelines, agentic systems, and Dockerized execution environments.

PROFESSIONAL EXPERIENCE

- **Nourished Mobile App:** Leading Python-based back-end development and system architecture for a swipe-based food discovery app, designing and implementing APIs, data models, feed algorithms, and dietary preference systems to enable scalable, AI-driven personalization and intelligent content ranking.
- **Snorkel AI (Forbes Top 50 AI):** Building LLM benchmarking tasks, implementing reference solutions, and adding automated verification within Dockerized CLI environments. **Tools:** Python, Docker, Git, CLI, test harnesses

TECHNICAL SKILLS

- **AI & Machine Learning** – Supervised & Unsupervised Learning, Deep Learning, Model Evaluation & Optimization, Feature Engineering, Multi-label Classification, NumPy, scikit-learn, pandas, TensorFlow, Data Preprocessing Pipelines, Natural Language Processing (NLP), Autonomous Agents, RAG
- **Programming & Software Engineering** – Python, SQL, Java, C, Node.js, JSON, JavaScript, Flask, HTML/CSS, Unix/Linux Shell Scripts, RESTful APIs, OOAD, Design Patterns, Algorithms, Data Structures, PostgreSQL Database, UML Diagrams
- **Frameworks, Platforms & Dev Tools** – Git/GitHub, Docker, AWS, DoD Cloud, PyCharm, VS Code, IntelliJ, LaTeX, SysML, Multer Middleware, Jupyter Notebook, LightGBM, LiquidMetal AI Raindrop

PROJECTS

Hackathon 1st place Winner: Autonomous Marketplace Flipper AI Agent ([AI Tinkerers SF](#)) ([Project](#)) ([GitHub](#))

- Built intelligent buyer/seller/broker AI agents on [LiquidMetal AI](#) Raindrop (SmartBuckets, event triggers, memory) and Vercel V0 to scan listings, value assets, negotiate, and flip inventory with live P&L tracking.

Social Media Engagement Prediction with Python, scikit-learn | CU Boulder ([Project](#)) ([GitHub](#))

- Built an end-to-end ML pipeline with preprocessing, scaling, and encoding to classify social media post engagement, achieving strong accuracy on test data.

ML/Cybersecurity Attack Classification with MITRE ATT&CK Prediction | CU Boulder ([Project](#))

- **Built multi-label classification models** using *Python*, *scikit-learn*, and *LightGBM* to predict MITRE ATT&CKs from a Kaggle cybersecurity dataset of 14,134 rows, implementing a preprocessing pipeline with regex-based tokenization, dimensionality reduction, and one-hot/multi-label encoding to handle 10K+ features.
- **Evaluated baseline algorithms** (Naive Bayes, SGD, gradient boosting), uncovering feature limitations and revealing the complexity and context-dependence of real-world attack behavior, guiding future models.

Anomaly Detection Pipeline in IoT Network Traffic in Python | CU Boulder ([Project](#)) ([GitHub](#))

- Built an unsupervised learning pipeline with feature engineering on the CTU-IoT Malware dataset to identify malicious vs. benign network connections.

Designing for Defense | CU Boulder & U.S. DoD Space Domain Awareness Lab ([Project](#))

- **Built functional prototype** and technical documentation for a multisource orbital data fusion and detection project to identify CCDM (camouflage, concealment, deception, maneuver) behavior in adversarial satellites.

Web Application for In-Game Item Purchases | CU Boulder ([Project](#)) ([GitHub](#))

- **Built the back-end of a purchase simulation platform** for CS:GO skins with advanced filtering by rarity, pattern, and price using Python, Node.js, RESTful APIs, SQL, and PostgreSQL.

EDUCATION

B.S. Computer Science – University of Colorado Boulder

Graduated **August 2025**

RELEVANT TRAINING

- **ML-Powered Resume Selector with Naive Bayes** – ([Coursera Certificate](#)) ([Project](#)) ([GitHub](#)) – Built an NLP pipeline to classify resumes using text preprocessing and bag-of-words features, achieving 97–100% accuracy on test data.
- **The Complete Python Developer – Zero to Mastery** ([Udemy Certificate](#)) – Advanced Python, OOP, RegEx, Functional Programming, Development Tools (PyCharm, Jupyter)
- **Web Security & Bug Bounty – Zero to Mastery** ([Udemy Certificate](#)) – Attack Vectors and Mitigation Strategies

ACHIEVEMENTS

U.S. Armed Forces Veteran: Chemical, Biological, Radiological & Nuclear (**CBRN**) Defense Specialist

Eagle Scout Award: Achieved the highest rank in Boy Scouts, earning 31 merit badges and two Eagle Palms