GIL ESKAYO
SOFTWARE ENGINEER

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Early-career Software Engineer focused on threat detection, vulnerability analysis, and secure system design, with hands-on experience applying machine learning to cybersecurity datasets for predictive threat analysis. Built models to detect anomalous network activity and classify attack techniques using Python and modern ML tools. Strong interest in defensive security, threat monitoring, and developing systems that improve organizational security posture.

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

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.

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.

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