Behzad Ousat

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Software Engineer & Security Researcher with 8+ years of experience in site reliability engineering, backend development, and applied machine learning. Experienced in creating data analysis pipelines, automating workflows with CI/CD, integrating AI into systems, and monitoring. Strong background in Linux administration, network protocols, and DevOps practices. Proven ability to adapt between software engineering, infrastructure operations, and research.

SKILLS

Programming: Python, Node.JS, Java	**Machine Learning:** PyTorch, ScikitLearn, Tensorflow, Keras
Data Stores: MongoDB, PostgreSQL, Redis, Pinecone	**Orchestration:** Github Actions, Kubernetes, Docker, MLFlow
DevOps: Ubuntu, Networks, WAF, TCP/IP, Routing	**AWS:** EC2, Beanstalk, S3, RDS, DocumentDB, CloudWatch
Monitoring: Prometheus, Grafana, Graylog, Jaeger Tracing	**Google Cloud:** GKE, AppEngine, Vertex AI, AutoML

Interpersonal: Cross-Functional Teamwork, Written and Verbal Communication, Mentoring, Multidisciplinary Collaboration

PROFESSIONAL EXPERIENCE

Florida International University - Graduate Research Assistant | Miami, FL   01/2022 – Present

- Developed LLM-powered **Browser Agents** to bypass complex web challenges such as reCaptcha with over 90% success rate, demonstrating critical detection requirements in modern agentic web.
- Implemented ML pipelines to classify users from browser interaction data, creating **Time Series** data collection, feature extraction, and model training using **PyTorch**, **Scikit-Learn**, and **LLM** services. Publication
- Implemented a text Captcha solving framework with 80% success rate in real-world websites in a single attempt by using **Tensorflow Object Detection** trained on data from over 1M websites. Publication
- Analyzed ecosystem-wide **Vulnerability Trends** by unifying GitHub Advisory and Snyk.io reports across 10+ package managers, uncovering **CWE** patterns, ecosystem differences, and malicious packages. Publication
- Detected zero-day anomalies within encrypted network flows by implementing **Open Set Recognition** models in **TensorFlow**, leveraging feature extraction on terabytes of PCAP data. Publication
- Led research projects in collaboration with faculty, students, and external teams, including Microsoft Security, contributing to open-source tools for user behavior analysis and phishing detection.

Tapsi - Senior Site Reliability and Software Engineer | Tehran   12/2017 – 10/2021

- Ensured 99% uptime for over 60 services by deploying and maintaining infrastructure of over 100 **Ubuntu** servers for compute clusters and databases across **Kubernetes**, **PostgreSQL**, and **MongoDB**.
- Built and optimized scalable data pipelines with **Kafka** and **Apache Spark** to process high-throughput system events across services, including Python ML microservices and data analytics workflows.
- Implemented **Monitoring Tools**, including Prometheus, Grafana, Jaeger, Datadog, and GrayLog to monitor system behavior, detect anomalies, and enable end-to-end debugging across 60+ microservices.
- Reduced deployment errors and automated model rollout by implementing end-to-end **CI/CD** pipelines for deployments on **Linux** with Python, **Bash**, and **Ansible**.

Image Analysis Group - DevOps Consultant | Remote – London   08/2020 – 12/2020

- Provided technical guidance for deploying application on **Google Cloud Platform** Java app engine and integrating data storage systems (PostgreSQL, Kafka) to support DICOM **Medical Image** analysis.

Fraunhofer IDMT - Machine Learning Engineer Intern | Germany   09/2019 – 12/2019

- Built **Multimodal Modeling** and classification pipeline for studio scene frames by developing a Deep Learning pipeline (OpenCV and CNN) to analyze over 100 hours of news broadcast data.

Lambede - Co-Founder and Full Stack Developer | Tehran   08/2016 – 12/2017

EDUCATION

Ph.D. Computer Science, Florida International University	01/2022 – 05/2026
M.Sc. Computer Engineering, Sharif University of Technology	08/2018 – 08/2021
B.Sc. Computer Engineering, University of Tehran	08/2014 – 08/2018

CERTIFICATIONS AND HONORS

Google Cloud Skillboost ML Engineer Path, 100+ hands-on hours with Vertex AI, AutoML, BigQuery, and Gen AI	2025
Conference Reviewer, RAID, DIMVA, MadWeb (20-25% Acceptance Rate)	2024, 2025
Journal Reviewer, IEEE Transactions on Information Forensics & Security (TIFS, IF 8.0)	2024
Scholarship Recipient, Student Government Association Graduate Scholarship	2024
Cisco Certified Network Associate (CCNA)	2021