Behzad Ousat

✉ behzad.ost@gmail.com   in linkedin.com/in/behzad-ousat
📞 786-824-6705   🌐 behzad-ost.github.io

SUMMARY

Software engineer & researcher in ML for web security with 8+ years of experience in site reliability engineering, back-end development, and applied machine learning. Experienced in creating data analysis pipelines, automating workflows with CI/CD, integrating AI, and monitoring. Strong background in DevOps practices, Linux administration, and network protocols with proven ability to adapt between software engineering, infrastructure operations, and research.

SKILLS

Programming: Python, Node.JS, Java
Data Stores: MongoDB, PostgreSQL, Pinecone
DevOps: Ubuntu, Networks, TCP/IP, Routing
Monitoring: Prometheus, Grafana, Graylog
Machine Learning: PyTorch, ScikitLearn, Tensorflow
Orchestration: Github Actions, Kubernetes, Docker, MLFlow
AWS: EC2, Beanstalk, S3, RDS, DocumentDB, CloudWatch
Google Cloud: GKE, AppEngine, Vertex AI, AutoML
Interpersonal: Cross-Functional Teamwork, Written and Verbal Communication, Mentoring, Collaboration

EXPERIENCES

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.
- Built 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** from 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 - Platform Technical Team Lead | Tehran   12/2017 – 10/2021

- Ensured 99% uptime for 60 microservices by maintaining infrastructure of over 100 **Ubuntu** servers for compute clusters and databases across **Kubernetes**, **PostgreSQL**, and **MongoDB**.
- Led platform team to design and build **Node.js** and Python **gRPC** and **Socket** message passing libraries with integrated **Prometheus** and healthcheck probes for full observability in **Grafana** dashboards.
- Accelerated rapid adoption of new technologies such as **MinIO**, **Vault**, **Kafka**, and **Spark**, researching and deploying production-ready solutions to enhance platform reliability and data processing capabilities.
- Reduced deployment errors and established automated rollouts by implementing **CI/CD** pipelines to include canary-testing, staging, and production environments utilizing **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.

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