# Zhila Bahrami, Ph.D.

## ML Scientist – Research and Development

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in zhila-bahrami zhilabahrami

#### Technical Skills

Programming Python, Java, SQL, MySQL, Oracle, C++, MATLAB, Typescript

languages

Machine Pytorch, Tensorflow, Computer Vision NVIDIA AI

Learning

Frameworks

Data Science Pandas, SQL, Scikit-Learn, Tableau

Frameworks

Tools OpenCV, Pyvips, Pillow, Git, NVIDIA Jetson, Raspberry Pi, Arduino

Deep Mask-RCNN, Faster RCNN, Dtectron2, RetinaNet, ResNet, Yolo, Transformers, Attention

Learning

Neural

Network

## Work Experiences

2023 – 2025 Full-time Employee, Aerium Analytics Inc, Calgary, AB

Developing CV-ML algorithms to measure runway makings at airports

2022 – 2024 Part-time Employee, BC Cancer Center, Kelowna, BC

Developing ML-based algorithms to detect Radiation Pneumonitis in CT images

2021 – 2022 Internship, BC Cancer Center, Kelowna, BC

Developing ML-based algorithms to detect non-small cell lung cancer detection in CT images

2021 – 2022 Internship, Intelliview, Calgary, AB

Developing ML-based algorithms to detect liquid leakage in thermal images

2019 – 2021 Internship, Canscan Inc, Montreal, QC

- O Developing ML-based algorithms to detect shipping container security seals in RGB images
- O Developing ML-based algorithms to detect shipping container defect detection in RGB images

#### Education

Ph.D. Electrical Engineering — University of British Columbia — Canada

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m MSc}$  Electrical and Computer Engineering — University of Kurdistan — Iran

#### Volunteer

2020 Team Lead, University of British Columbia

Leading a capstone team of undergraduate students from UBC to develop a deep learning-based framework for obstacle detection at terminals.

2023 **Team Lead**, Aerium Analytics Inc.

Leading a capstone team of undergraduate students to develop a OpenCV-based framework to detect small object anomalies using the images captured from laser mounted on small machine.

### Skills

Applied Machine Learning, Artificial Intelligence (AI), Python, C++ Programming Language, Java Programming Language, Computer Vision, Convolutional Neural Networks, Data Visualization, Deep Learning, Deep Neural Networks (DNNS), Git, Image Classification, Image Recognition, Jupyter Notebook, Machine Learning, Machine Learning Algorithms, Object Classification, Object Detection, Object Identification, Object Recognition, Python Numpy, Python Sqlite3, PyTorch, Scene Understanding, Scikit-Learn, Structured Query Language (SQL), My Structured Query Language (MySQL), Oracle, Supervised Learning, Anomaly Detection, Instance Segmentation, Cloud Computing AWS, SageMaker, EC2, Pyvips, Raster Data, GIS, Azure Pipeline, Identity Server, Vercel, Dashboard, Typescript, Attribute Rules, LLM, RAG, Agent AI, Lang Chain.