Lukas Fenkam

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Professional Summary

Motivated and detail-oriented Computer Science student at Ontario Tech University with hands-on experience in AI research and open-source software development. Proven ability to design and implement deep learning pipelines using TensorFlow/Keras, with academic contributions in forensic image analysis. Adept in multiple programming languages including Python, Java, and C++, with a strong foundation in data structures, algorithms, and systems design. Certified in Linux and Generative AI, and experienced in collaborating on real-world projects within both academic and industry settings. Passionate about building scalable, ethical, and innovative tech solutions that solve real-world problems.

Projects

Bloodstain Pattern Analysis — CNN, TensorFlow/Keras

Built and trained convolutional neural networks to classify blunt vs. gunshot bloodstain patterns.

Applied preprocessing, data augmentation, and hyperparameter tuning to improve model accuracy to an average of over 80%.

Contributed findings to forensic AI research under Ontario Tech University's Trustworthy AI Lab.

Quarkus GitHub Bot — Red Hat Internship

Developed a GitHub extension to streamline issue and pull request triage in the Quarkus ecosystem.

Automated workflow tasks, reducing manual overhead for open-source maintainers.

Portfolio Website — HTML, CSS, JavaScript, GitHub Pages

Developed and deployed a responsive personal portfolio to showcase academic, research, and open-source projects.

Integrated GitHub repositories such as Data Structures Course, Scientific Data Analysis, and Quarkus GitHub Bot into project cards with descriptions and links.

Optimized layout and accessibility for both desktop and mobile viewing.

Experience

Ontario Tech University, *Research Intern* — Oshawa, ON

Jul 2025 – Aug 2025
Researched forensic and computer vision literature to identify features and methods for BPA.
Preprocessed and augmented forensic datasets to improve model generalization and reduce imbalance.
Designed, trained, and tuned CNN architectures in Python (TensorFlow/Keras), boosting accuracy.
Collaborated with lab members, contributing to forensic AI research publications.

Red Hat Inc., *Intern* — Remote
Jul 2021

Designed and deployed a GitHub extension improving issue/PR triage efficiency in the Quarkus ecosystem.
Collaborated with open-source developers to optimize workflows.

Education

BSc, Ontario Tech University, Computer Science — Oshawa, ON
Sep 2023 – Jun 2027

Data Structures (CSCI 2010U), Analysis and Design of Algorithms (CSCI 3070U), Machine Learning Theory and Application (CSCI 4050U)

Skills

Programming & Tools: Java, Python, C++, JavaScript, HTML/CSS, Quarkus, Git/GitHub, OpenGL
AI / Data Science: TensorFlow, Keras, NumPy, Pandas, CNNs, Data Augmentation
Systems & Platforms: Linux (Red Hat Enterprise, Ubuntu), Git Bash
Certifications: LPI Linux Essentials, IBM Generative AI (Prompt Engineering, Intro & Applications), Red Hat Certified System Administrator (in progress)

Languages

English: Native speaker
French: Native speaker
German: Native speaker

Volunteering

Organizer and Workshop Leader (Aproresco HackApro) — Jan 2025 – Apr 2025
Organized logistics for a bilingual hackathon with 50+ youth participants.
Created and led an interactive Scratch workshop for beginners.
Developed evaluation grids and supported event coordination.