

JOUDAT HAROON

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EDUCATION

University of Guelph
Bachelor's, Computer Science

September 2020 - June 2025

SKILLS

Programming Languages: JavaScript, TypeScript, Python, C/C++, C#, Java, SQL, Go, Dart, Rust, HTML/CSS, PHP

Technologies: React.js, Django, Node.js, MongoDB, Next.js, Flutter, .NET, AWS, Postgres, AngularJS, Tensorflow, jQuery, Docker, REST APIs, Express.js, Git, Unity

PROFESSIONAL EXPERIENCE

Camis

Guelph, ON, Canada

Software Developer

January 2024 - August 2024

- Developed, maintained, and tested features within, but not limited to, online payments, integrated and non-integrated payments, reconciliation, and financial reporting.
- This is manifested through refactors, visual QOL changes, introducing new features, or fixing bugs.
- Presented new features to internal stakeholders during sprint reviews.
- Worked with various State (U.S) or Provincial (Canada) parks on release impediments, resulting in high client satisfaction.

LeapAP

Toronto, ON, Canada

Junior Software Developer

July 2022 - December 2022

- Built new web scrapers and parsers for our software
- Monitoring performance and accuracy of the system
- Improved scraper efficiency, reducing scrape times and increasing invoice creation by approximately 1,397 per month.
- Developed dynamic sales list programs and engaged in design discussions to optimize workflows.

PROJECTS & OUTSIDE EXPERIENCE

Ambianced - Reading Atmosphere - [Link to project](#)

- Developed a full-stack web application that enhances the reading experience by generating AI-driven visuals and dynamic music selection based on book content.
- Implemented AWS Textract for Optical Character Recognition (OCR), extracting text from the user's book page in real-time.
- Used OpenAI's GPT to analyze the extracted text, selecting relevant Spotify tracks, and generate ambient images with DALL-E.
- Integrated Spotify API for seamless music playback, resolving challenges with authentication and refresh tokens.
- Built using Next.js for front-end and back-end functionality, Auth0 for authentication and shadcn for styled, accessible components.
- Tools Used: TypeScript, React, AWS Textract, shadcn, DALL-E, Spotify API, Auth0

IMG Filter - GPU Accelerated Image Enhancer - [Link to project](#)

- Developed a Python-based image processing tool to perform noise removal using median filtering and image sharpening using unsharp masking.
- Implemented image manipulation algorithms with NVIDIA's Warp API, enabling parallel processing and acceleration on CUDA-capable GPUs.
- Handled both grayscale and RGB image formats, with built-in support for RGBA conversion and edge-padding strategies for border preservation.
- Created Gaussian kernel generator for convolution and applied channel-wise sharpening with adjustable intensity scaling.
- Tools Used: Python, NVIDIA Warp, NumPy, Pillow, CUDA

CNNs PyTorch - Image Classification Evaluation - [Link to project](#)

- Designed and evaluated multiple convolutional neural network (CNN) architectures for image classification using the CIFAR-10 dataset.
- Implemented three progressively complex models: a baseline CNN, a dropout-enhanced CNN, and a deep CNN with weight decay and extensive data augmentation.
- Achieved 88.14% validation accuracy with the most advanced model, incorporating 6 layers, Adaptive Moment Estimation (Adam), and augmentations such as RandomCrop, ColorJitter, and RandomErasing.
- Conducted experiments with and without batch normalization, demonstrating its significant effect on performance (+1–6% accuracy gains).
- Tools Used: Python, PyTorch, NumPy, Matplotlib

ACHIEVEMENTS & EXTRACURRICULAR

- 5x hackathon winner (3x on the podium)
- \$3000 entrance scholarship
- Hackathons NA - Backend Developer (part-time, student-run)
- Hackathon & Tech conference volunteer