

in krisfrasheri

K-Frash

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## **SKILLS**

#### LANGUAGES:

• C / C++ / C# • Python • SQL • Java • JavaScript • HTML5 • CSS • Haskell

#### TOOLS & FRAMEWORKS:

- TensorFlow Pytorch AWS Azure Docker DVC Sisense Hydra Docker Snowflake Keras
- NumPy Pandas OpenCV Unity Bash Git Jenkins LATEX

## EDUCATION

## UNIVERSITY OF WATERLOO | Bachelor of Computer Science

September 2016 - August 2021 | Waterloo, ON

• Honours Computer Science - Co-operative Program (graduated with distinction)

## EXPERIENCE AI ENGINEER | ReeBee

September 2021 - August 2022 | Kitchener, ON

- Designed an AI model to enhance revenue optimization through generating personalized flyer recommendations to Reebee users
- Utilized Thompson Sampling with contextual bandits to personalize flyers recommendations to millions of users, increasing click-through rate and revenue gained by 8.8% to 9.7%
- Constructed an ML pipeline by containerizing our model with Docker, state iteration with DVC + Hydra and model deployment with AWS Lambda
- Leveraged Snowflake and Sisense for live model performance monitoring and visualization

## **SOFTWARE ENGINEER - FACILITIES EMULATION** | Dematic

May 2020 - September 2020 and January 2021 - April 2021 | Waterloo, ON

- Leveraged Unity's Data Oriented Technology Stack (DOTS) in enhancing the performance of large scale client scenes that utilized over 500,000 dynamic entities by 135%
- Implemented control flow algorithms on monorail and conveyor layouts in C# within Unity to optimize package transportation at run time, enhancing customer supply chain efficiency by 37%
- Designed automated regression testing for new and existing scenes on the CI pipeline, reducing manual labor by 66%

#### **UNDERGRAD RESEARCH ASSISTANT** | University of Waterloo

December 2019 - June 2020 | Waterloo, ON

- Conducted research with Charles Clarke in the field of neural indexing for conversational modeling
- Reduced weak supervised training time in the Standalone Neural Ranking Model by 15% leveraging the **TensorFlow** library
- Extended the Apache Lucene Core to support the combination of keyword and neural indexing

#### **INSTRUCTIONAL SUPPORT ASSISTANT** | University of Waterloo

April 2018 - Present | Waterloo, ON

- Assisted in the coordination of CS246: Object-Oriented Software Development (Bash | C++)
- Delivered tutorials and addressed inquiries on Object Oriented principles and the Unix environment, developing 200 to 1800 line programs in C++
- Increased course efficiency through the automation and optimization of back-end processes with Python and Bash scripting, reducing testing times from 1+ days to less than 1 hour

## **PROJECTS**

## MNIST MATH





- An educational website written in HTML5, CSS and Javascript for users to solve arithmetic problems through hand-drawing digits on a canvas
- Leveraging the MNIST dataset through Keras, the model was built in Tensorflow, trained in a Jupyter notebook and converted to Tensorflow.js for serving on the website
- Client input was collected with OpenCV.js, pre-processed and fed to the model

# QUICK-CODE (NW HACKS)



- Deployed an online IDE converting verbally spoken pseudo-code into JavaScript by leveraging Microsoft Azure's web and Cognitive Services
- Winner of Best Voice Biometrics Hack and the Wolfram Award