Bilal Khan

https://bkkaggle.github.io

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https://github.com/bkkaggle

ABOUT

- **Interests:** Generative modeling, NLP, Systems programming, Full-stack and mobile development
- **Languages:** Python, Rust, C/C++, Javascript, SQL, Swift
- **Libraries and Frameworks:** JAX, Pytorch, Tensorflow, ReactJS, React Native, NodeJS, GCP

EXPERIENCE

L2
May—June 2020

Fast, BLAS-accelerated machine learning library   https://github.com/bkkaggle/L2

- Wrote a fast and efficient machine learning library in the Rust programming language.
- Supports numpy-style multidimensional arrays and array operations, BLAS-accelerated matrix multiplication, and a graph-based automatic differentiation engine.

NLP Research Project
March—May 2020

Replicated GPT-2   https://github.com/bkkaggle/lm-training-research-project

- Pretrained OpenAI's 124M parameter GPT-2 language model to generate convincing human-like text.
- Used the Google Cloud Platform with PyTorch and Tensorflow to scale the model to a 128-core TPU Pod.
- Developed and pretrained a new, more efficient ALBERT-style language model.

Blog
2020—Present

Topics in machine learning, Rust, and computer science   https://bkkaggle.github.io/blog

- Wrote series of long and short form blog posts on several topics in machine learning and computer science.
- Published blog posts on the official PyTorch and Weights&Biases blogs (https://bit.ly/2FFCzL9, https://bit.ly/31Q06AS)

SATisfied
Sep 2019—May 2020

Education App

- Worked on developing an app to help students preparing for the SAT by creating personalized plans based on student responses to diagnostic tests.
- Built with React Native, ExpressJs, MySQL, and the Google Cloud Platform.

Machine learning competitions
Jan 2018—July 2019

Kaggle Expert   Highest competition rank: 798/140,000+

- **Silver Medal:** (41/3611) Google Analytics Customer Revenue Prediction Competition.
- **Bronze Medal:** (54/648) CERN TrackML Particle Tracking Challenge
- **Bronze Medal:** (173/3229) TGS Salt Identification Challenge
- **Bronze Medal:** (287/3634) 2018 Data Science Bowl
- **Bronze Medal:** (314/3165) Jigsaw Unintended Bias in Toxicity Classification

EDUCATION

University of Waterloo
Bachelor of Software Engineering (BSE) Candidate

1A student   2020—2025

Coursera
Deep Learning Specialization

https://coursera.org/verify/specialization/8YRK7HDMW5XZ   Nov 2017—Feb 2018