Colin Versteeg

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Professional Experience

Twitter — July 2020 -
Home ML Systems — Seattle, WA
Machine Learning Engineer II

- Developed ML Infrastructure for for Twitter's ranked Home Timeline which drives 20 million+ monetizable daily active users
- Led a team of 4 engineers to migrate the Home team's batch aggregation framework from Scalding to Apache Beam on Google DataFlow, improving performance by 3x and reducing cost by $60K a month.
- Launched the ranked home timeline in Twitter's third datacenter, serving 30 million+ daily requests
- Implemented changes across the serving, scribing and training infrastructure to engineer new features for the Home Timeline
- Interviewed 50+ candidates to help grow team from 6 to 20 members

Microsoft — Nov. 2017 - July 2020
AI Inferencing and Infrastructure — Redmond, WA
Software Engineer II

- Launched Azure Machine Learning Hardware Accelerated Models service, based on research from Microsoft Research, for acceleration of Neural Networks on Field Programmable Gate Arrays (FPGAs), delivering execution 50 times faster then CPUs
- Developed high performance C++ and C# gRPC servers to operationalize Tensorflow and ONNX graphs into a high performance DNN inference service on Kubernetes with sub-5ms overhead
- Developed Python software to identify portions of Tensorflow graphs which can be accelerated, operationalize Keras, ONNX, and Tensorflow models and invoke remote inferencing

Microsoft — Aug. 2016 - Nov. 2017
Machine Learning Server — Redmond, WA
Software Engineer

- Prototyped initial support for Python in Microsoft R Server and Microsoft SQL Server as part of a 4-person virtual team, leading to the launch of Microsoft Machine Learning Server and SQL Server Machine Learning Services
- Designed and implemented support for Python model operationalization in Microsoft Machine Learning Server

Booz Allen Hamilton — June 2015 - Aug. 2015
Malware Analysis Intern — Annapolis Junction, MD

- Developed a prototype of a streaming data pipeline for malware analysis using Apache Storm, Elasticsearch, Java and Python

Food and Drug Administration — May 2014 - Aug. 2014; Jan. 2015
Mathematics and Statistics Trainee — Silver Spring, MD

- Developed a public-domain software package for streamlined generation of advanced algorithm assesment studies in Python with NumPy and MATLAB to assist industry in evaluating performance of iterative reconstruction algorithms
- Awarded Oak Ridge Institute for Science and Education fellowship for undergraduate research

Food and Drug Administration — May 2013 - Aug. 2013
Research Intern — Silver Spring, MD

- Researched methods to evaluate performance of algorithms for reducing artifacts in CT scans

Education

University of Maryland — May 2016
B.S. *Computer Engineering* — College Park, MD

Skills

Programming Languages: Python, Scala, C♯, Java, C++, R, F♯, Go

Platforms/Technologies: TensorFlow, Apache Beam, .NET Core, Kubernetes, Scalding, Azure, GCP