Jesse Brizzi

Machine Learning | Computer Vision | Full Stack Engineering | Data Science

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Citizenship	US Citizen

EDUCATION

Stony Brook University   2016

Masters   **3.96 GPA**
- Computer Science
- CV and ML Specialization

University of South Florida 2014

Bachelor of Science   **3.92 GPA**
- Computer Science

SKILLS

Programming Languages: SQL, Python, Scala, C++, Java,

Deep Learning: MXNet, TensorFlow, Pytorch, Caffe
Data Science: SK-Learn, Presto, Pandas, Numpy, Hive, Spark
Computer Vision: OpenCV

Infrastructure: Amazon Web Services, Docker, Serverless, Terraform

FELLOWSHIPS

- NSF GRFP Fellow
- W. Burghardt Turner Fellow

TALKS/BLOG POSTS

Choosing a Deep Learning Library: There are a lot of them
NYC Ai NextCon 2019

Serving deep learning at Curalate with Apache MXNet, AWS Lambda, and Amazon Elastic Inference
AWS Machine Learning Blog

How to Setup a Scheduled Scala Spark Job
Curalate Dev Blog

How Curalate uses MXNet on AWS for some Deep Learning Magic
MXNet Dev Blog

Last Updated: January 2022

EXPERIENCE

Meta - Instagram   Machine Learning Software Engineer   *Mar 20 to Present*

- Proven tech lead, individual contributor, cross-team collaborator / negotiator, strategic resource allocator / planner, and team builder on high impact Search products.
- Shipped Instagram Shopping Visual Search, founding member of a 0 - 1 project coordinating with many XFN dependencies across the Instagram app and Meta organization.
  - Designed and implemented backend visual search platform, indexing and retrieval for approximate nearest neighbor search of product corpus on internal search infrastructure.
  - Drove successful collaboration, adoption and standardization with partner teams
  - Coordinated with research teams to productionize state-of-the-art deep learning models for object detection, image embedding, classification, and feature extraction.
- Shipped Instagram Shop Tab Typeahead, founding member of a 0 - 1 project.
  - Designed and implemented backend infrastructure for serving typeahead suggestions across all instagram storefronts and sellers.
- Ensured best practices for monitoring, scaling, and maintaining services at Meta's size/scale.
- Top interviewer and recruiter in org with a focus on Diversity and Inclusion.
- Mentor for junior and senior engineers on SQL and data-pipeline optimization/best practices, and mentor for onboarding new members and junior engineers into team/organization.

Curalate   Computer Vision/Machine Learning Research Engineer   *Jun 16 to Jan 20*

- Backend Scala development for social media SaaS platform. Full AWS/Asgard/Jenkins stack. Finatra/Finagle/Scalatra microservice structure. MySQL/DynamoDB/Redis/Redshift/S3 datastores.
- Designed, built, owned high performance, Scala/C++, Computer Vision and Recommendation deep learning web services and API's that served a half a Billion inference requests per month using Caffe/MXNet/OpenCV.
- Exploratory research and testing into the state-of-the-art computer vision and machine learning algorithms in Python to solve business problems and develop new products.
- Created and managed datasets of proprietary data for use in training deep learning models for social media SaaS specific tasks.

inferdo   Founder/Creator   *May 19 to Mar 20*

A state-of-the-art, performant, scalable, and affordable Computer Vision API
- Lead/Designed/Developed the Inferdo platform and API
  - Creation of trained Computer Vision deep learning models
  - Development of a highly scalable and performant infrastructure to host deep learning models in Python and Serverless design paradigms.
- Product Management for the API's targeted applications and markets
- Branding, Design, and Web Dev

Stony Brook University   Research/Teaching Assistant   *Aug 14 to May 16*

- Computer Vision and Machine Learning Laboratory.

CAE   Industry Co-op/Senior Project   *Aug 13 to May 14*

- C++ and Network Dev project focused on high-performance video transmission.

University of South Florida   Undergraduate Researcher   *Jun 13 to May 14*

- Image Processing Laboratory.

PUBLICATIONS

Automatic expression spotting in videos   *Aug 31, 14*
Image and Vision Computing

Optical Flow Based Expression Suppression in Video   *Aug 24, 14*
International Conference on Pattern Recognition