

ALEX EFTIMIADES

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WORK EXPERIENCE

Catalist LLC *Analytics Engineer*

Washington DC
Feb 2018 | Present

- Optimized and deployed Keras/Tensorflow models
- Designed and wrote code refactoring tools
- Designed and wrote real time data processing pipeline
- Wrote internal technical guides on parallel processing
- Contributed code to Keras

Comsol *Developer*

Burlington, MA
Feb 2016 | May 2017

- Researched models and techniques to simulate physical phenomena of interest to engineers and scientists
- Wrote technical specifications of model, algorithm, and graphic interface
- Implemented algorithms used for numerical simulations and user interfaces in java
- Helped customers create and optimize simulations

Self Employed *Freelance Software Engineer*

/dev/null
March 2013 | Pres

- American Dental Association Foundation - data visualization, image processing
- University of Maryland Baltimore County - high performance computing and simulations
- Tor - internet censorship circumvention, protocol design, threat analysis

RELEVANT BUZZWORDS

Programming Languages:	Python, Bash, SQL, C++
Frameworks:	Keras, Numpy/Scipy, Cython, Pandas, scikit-learn, GNU Parallel
Tools:	Git, Vim, AWS, Jupyter, matplotlib, hdf5

PROJECTS

Toy Q Learning Python <https://github.com/aeftimia/Reinforcement-TicTacToe>
Trained two bots to learn to play tic tac toe via Q learning.

Discrete Exterior Calculus Framework Python, Cython, Cuda <https://github.com/aeftimia/kahler>
Developed and reported on efficient and parallelized finite elements framework

PUBLICATIONS

Enhancing the Three-Dimensional Structure of Adherent Gingival Fibroblasts and Spheroids via a Fibrous Protein-Based Hydrogel Cover. Cells Tissues Organs
Published with biologists at American Dental Association Foundation Aug. 2016

Kahler: An Implementation of Discrete Exterior Calculus on Hermitian Manifolds
<http://arxiv.org/abs/1405.7879>
Independent research and implementation May 2014

EDUCATION

UMBC Catonsville, MD
BS Physics 2013 - 2015