Arlene Siswanto

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COURSEWORK

Graduate Level
- 6.435 - Bayesian Modeling and Inference
- 6.883 - Machine Learning
- 6.864 - Natural Language Processing
- 6.819 - Computer Vision
- 6.840 - Theory of Computation
- 6.857 - Computer Security
- 6.S974 - Decentralized Applications

Mathematics
- 18.650 - Statistics
- 18.615 - Stochastic Processes
- 18.600 - Probability
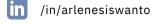- 18.065 - Matrix Methods for Data Analysis and ML

SKILLS

Languages - Python, JavaScript, C++, Java, Matlab, R

Tools - PyTorch, JAX, Keras, Scikit-learn, React, Angular

HACKATHONS

HackPrinceton '18 - Best AR/VR Hack, 1517 Fund Prize

PennApps '17 - PennApps Second Place Overall

HackMIT '17 - Best Travel App

HackPrinceton '17 - Best Internet of Things Hack

MakeMIT '17 - Top 10 Hack

D devpost.com/arlenesiswanto

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EDUCATION

Massachusetts Institute of Technology | Cambridge, MA   *Jun '20 - Dec '20*
- M.Eng. in Artificial Intelligence, Advisers: Michael Carbin and Jonathan Frankle
- Thesis: Block Sparsity and Weight Initialization in Neural Network Pruning

Massachusetts Institute of Technology | Cambridge, MA   *Sep '16 - May '20*
- B.S. in Computer Science and Engineering, Minor in Mathematics

WORK EXPERIENCE

Google Brain - AI Resident | New York, NY   *Feb '21 - present*
- Developed deep learning models, performed large-scale experiments, and wrote publications toward understanding model uncertainty and variance

DeepMind - Research Platform Intern | London, UK   *Sep '19 - Jan '20*
- Developed alongside Research Platform Team on platform that allows researchers to perform an initial analysis of their experiments
- Expanded analyses to support non-scalar tensor data, such as images and arrays

Shell Street Labs - Quantitative Research Extern | Hong Kong   *Jan '20 - Jan '20*
- Predicted IPO market trends through regression, topic modeling, and clustering

Jump Trading - Software Engineering Intern | Chicago, IL   *Jun '19 - Aug '19*
- Developed on equities trading team to automate configuration verification
- Built standalone trading microplatform with real-time connections to exchanges

Bloomberg - Software Engineering Intern | New York, NY   *Jun '18 - Aug '18*
- Developed on the Execution Management System (EMSX) trading platform, an application used by over 20,000 traders and brokers to execute orders

PROJECTS

Gather Town   *Fall '20*
Early team member (<10) at startup that raised $26M Series A at $200M valuation, developing on a social platform that combines video calls with custom 2-D spaces

dormsp.am   *Spring '19*
Platform built for the MIT community that scrapes, parses, and aggregates on-campus events advertised on email with hundreds of weekly users upon release

BeaverDocs   *Fall '18*
A collaborative editor that allows multiple users to edit the same document without a central server using a peer-to-peer broadcasting system

RESEARCH & PUBLICATIONS

Decomposing Variance from Mini-Batch Order and Parameter Initialization   *Google*
Arlene Siswanto, Ben Adlam, Lechao Xiao, and Jeffrey Pennington
Bay Area Machine Learning Symposium, 2021.

Reconciling Sparse and Structured Pruning: A Scientific Study of Block Sparsity   *MIT*
Arlene Siswanto, Jonathan Frankle, and Michael Carbin
ICLR Workshop — Science and Engineering of Deep Learning (SEDL), 2021

Examining the Role of Normalization in the Lottery Ticket Hypothesis   *MIT*
Arlene Siswanto, Jonathan Frankle, and Michael Carbin
ICLR Workshop — Science and Engineering of Deep Learning (SEDL), 2021