Steven Durr

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EDUCATION

University Of California, Los Angeles
Los Angeles, CA
Chakravarty Research Group
Sep 2016 - Jun 2022
PhD in Theoretical Condensed Matter Physics
Dissertation: *Many-Body Physics and Machine Learning*

M.S. in Physics
Sep 2017
Cumulative GPA: 4.0

Cornell University
Ithaca, NY
Bachelor of Arts in Physics, Mathematics (Double Major)
Aug 2012 - May 2016
Upper Level Physics+Math GPA: 3.713

EXPERIENCE

UCLA
Los Angeles, CA

Chakravarty Group Member
Jan 2017 - Jun 22
- Applying transformer language models as variational ground states.
- Used unsupervised learning to identify nonequilibrium phases of matter.

Work with Professor Shenshen Wang
- Characterizing phase transitions in GAN dynamics.
- Studying resonance in biological search strategies (paper in preparation).

Google
Venice / Mountain View, CA
Software Engineering Intern
Google Quantum AI
Jun - Sep 2021
- Implemented, tested, and ran experiments for surface code crosstalk calibration on Google's quantum computers.
- Ran experiments and analyzed data to understand the comparative benefit of different pulse sequences.

Google My Business
Jun - Sep 2018
- Applied transformer language models, clustering algorithms, and dynamic templates to produce accurate merchant descriptions.

CORNELL
Ithaca, NY
Perelstein Group Research Assistant
May 2015 - May 2016
- Developed programs in Python for implementing neural networks of arbitrary architectures (both fully connected and convolutional), later migrating to TensorFlow once it was released.
- Applied neural networks to boosted top quark identification in LHC jets

SKILLS

Python: 6+ years of experience. Familar with TensorFlow, PyTorch, Numpy, Scipy, Pandas, Matplotlib, Cirq, Qiskit, Jupyter/Colab Notebooks, Git, etc.

Relevant Coursework: Deep Learning Theory Summer School at Princeton 2021, CS239: Quantum Programming / Advanced Quantum Programming (Grade: A)

SELECTED WORK

Effective Dynamics of Generative Adversarial Networks
Steven Durr, Youssef Mroueh, Yuhai Tu, Shenshen Wang
arXiv:2212.04580v1 [cond-mat.dis-nn]