

Wilka Carvalho

☎347-495-5329 | ✉wcarvalho92@gmail | 🏠wcarvalho.io | 🌐wcarvalho | 📷wilkacarvalho

EDUCATION

UNIVERSITY OF MICHIGAN- ANN ARBOR (UMICH)

PH.D. IN COMPUTER SCIENCE

Expected May 2022 | Ann Arbor, MI

UNIVERSITY OF SOUTHERN CALIFORNIA (USC)

M.S. IN COMPUTER SCIENCE

Grad. May 2017 | Los Angeles, CA

GPA: 3.5

STONY BROOK UNIVERSITY (SBU)

B.S. IN PHYSICS

Grad. May 2015 | Stony Brook, NY

GPA: 3.5

Dean's List (2011-2015)

COURSEWORK

Natural Language Processing

Artificial Intelligence

Operating Systems

Linear Algebra

Differential Equations

Multi- and Uni-variate Calculus

SKILLS

RESEARCH

Deep Learning

Computational Modeling

Project Design

Large Library Development

PROGRAMMING

Python • C++ • C • \LaTeX

MatLab • Javascript • PHP • HTML

SOFTWARE

Tensorflow • Theano • Keras • Neuron

SOFT SKILLS

Creative • Critical Thinker

Excellent Writer and Communicator

Time- and Task-Management

Independent • Self-motivated

INTERESTS

traveling • chess • software development

improvisational dance • deadpan humor

EXPERIENCE

IBM | MACHINE LEARNING RESEARCH INTERN

IBM Research | Sep 2017 – Present, San Jose, CA

- Contributed to novel research algorithm by suggesting subspace projection technique that increased our performance from 15% to 95% accuracy. Designed and implemented environment for testing algorithm.
- Developed baseline and state-of-the-art neural networks using Tensorflow.
- Built data pipeline for large image dataset.
- Research was presented in global meeting to IBM executives including CEO and selected for funding.

VISA | MACHINE LEARNING RESEARCH INTERN

Visa Research | Jun 2017 – Aug 2017, Palo Alto, CA

- Formulated a novel neural network for learning a language model.
- Implemented model and baselines for language generation and question answering using Tensorflow and Facebook's ParlAI NLP software.
- Performed extensive literature reviews on machine reading comprehension and generative models.

UNIVERSITY OF SOUTHERN CALIFORNIA | RESEARCH ASSISTANT

Machine Learning Group | Nov 2015 – May 2017, Los Angeles, CA

- Implemented novel transfer learning neural network.
- Wrote introduction, methods, discussion, and summary of co-first author papers published at NIPS and ICLR.
- Communicated research to general public through research feature by the USC Graduate School and to technical audience at ICLR poster presentation.
- Awarded runner-up for best machine-learning application poster at SCML symposium. Worth \$1000 in Amazon AWS credit.

STONY BROOK UNIVERSITY | NSF LSAMP SCHOLAR

Nuclear Physics Group | Jan 2013 – Aug 2015, Stony Brook, NY

- Built and maintained a simulator in C++ for the heavy ion particle detector at the Brookhaven National Laboratory.
- Contributed methods from multivariate calculus and linear algebra to particle detection algorithm. Accuracy improved from 60% to 80%.
- Designed and implemented a statistical analysis pipeline for measuring efficacy of particle detection algorithm.
- Presented research and won 2nd place in math and physics category at state conference.

CALTECH | HHMI RESEARCH FELLOW

Emotion & Social Cognition Laboratory | Jun 2014 – Aug 2014, Pasadena, CA

- Formulated a behavioral experiment to study human inference.
- Built online platform to administer psychology experiments using Javascript, PHP, and HTML.

FELLOWSHIPS & AWARDS

- University of Michigan Rackham Merit Fellowship (2017)
- GEM National Fellowship sponsored by IBM (2017)
- ICLR Travel Award (2017)
- National Science Foundation Graduate Research Fellowship (2015)
- SBU Provost Award for Academic Excellence (20/4000 graduates chosen) (2015)
- SBU Researcher of the Month (1 school-wide monthly) (2014)
- National Achievement Scholarship Finalist (top 5% nationally) (2011)