CAMERON R. WOLFE

wolfe.cameron@rice.edu • (512) 669-0773
1333 Old Spanish Trail • Houston, TX 77054 • *GitHub:* wolfecameron

EDUCATION

Rice University — PhD Student, Computer Science — *August 2020 – Present*
Advisor: Dr. Anastasios Kyrillidis

The University of Texas at Austin — Bachelor of Science, Computer Science (Business Minor) — *Graduated May 2020*
Overall GPA: 4.0

PUBLICATIONS AND RESEARCH

Distributed Learning of Deep Neural Networks using Independent Subnet Training – *Under Review* — *Present*
- Expanded independent subnet training (IST) methodology to perception tasks (i.e., ResNet on CIFAR10/100)
- Helped develop theoretical convergence proofs for IST, access on Arxiv

Demon: Momentum Decay for Improved Neural Network Training – *Under Review* — Present
- Developed a novel momentum decay schedule for neural network training and evaluated the schedule in several domains
- Momentum decay improves robustness to hyperparameter tuning and increases overall performance, access on Arxiv

Data Augmentation for Deep Transfer Learning – *Undergraduate Honors Thesis* — *November 2019*
- Developed new forms of data augmentation for embedding inputs, both textual and visual, to deep learning models
- Completed in partnership with Salesforce as my Undergraduate Honors Thesis, access on Arxiv

Functional Generative Design of Mechanisms with RNNs and Novelty Search – *Conference Paper, GECCO'19* — *July 2019*
- Used genetic algorithms (GA**)** and recurrent neural networks (RNNs) to design gear mechanisms for 3D-printable cars
- The gear mechanisms were physically fabricated and shown to perform optimally, access on Arxiv

Featured Writer - *Towards Data Science on Medium.com* — *Fall 2018 – Present*
- Publications: *Building a Music Recommendation Engine with Probabilistic Matrix Factorization in PyTorch (March 2019), Understanding CPPNs (January 2019), Training a Random Forest to Identify Malignant Breast Cancer Tumors* (July 2018)

INDUSTRY EXPERIENCE

Salesforce – *Data Science Intern* — *May 2019 – August 2019 (Cambridge, MA); August 2019 – Present (Remote)*
- Interned twice as a data scientist, currently a part-time research resident for e-commerce Einstein team (CCE)
- Developed multi-modal embedding models for e-commerce data that are used for numerous CCE products
- Designed and maintain the "Complete the Set" recommendation system, which is used by numerous customers
- Designed and maintain a data labeling system that was used to create the largest internal dataset at the company

Q2ebanking – *Data Science Intern;* Austin, TX — *May 2018 – August 2018*
- Built a model to detect salary payments and predict income levels based on someone's bank account
- Built a system for classifying transaction data, which was used to create the dataset for the above project.

LEADERSHIP EXPERIENCE

Intern Trail Guide – *Salesforce* — *Summer 2020*
- During my second internship at Salesforce, I served as a "trail guide" for another Data Science Intern on my team
- I scheduled frequent meetings and research discussions with the intern to help him have a successful internship

Freshman Research Initiative – *Teaching Assistant and Mentor* — *Fall 2016 – Spring 2019*
- Undergraduate teaching assistant for neural networks research course and introductory research course at UT Austin
- Hosted office hours for 100+ students weekly, graded assignments, and fostered relationships with 6-8 personal mentees

HONORS

- Pollard Fellow, *Rice University* — *Present*
- Ken Kennedy Fellow, *Rice University* — *Present*
- Highest Academic Honors, *UT Austin* — *May 2020*

ADDITIONAL INFORMATION

Computer Languages: Python, C, Java
Languages: English, conversational Spanish
Technical Interests: Multi-modal deep learning, multi-task learning, non-convex optimization, quantum computing
Personal Interests: Blogging, music (play tuba/piano), brewing/drinking coffee