

# Giulio Zhou

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## Education

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**Carnegie Mellon University (Pittsburgh, PA)** 08/2017 – *present*

PhD, Computer Science, *Advisor: Dave Andersen*

**University of California, Berkeley (Berkeley, CA)** 08/2012 – 12/2016

Bachelor of Arts, Computer Science **GPA: 3.893 / 4.0**

*Relevant Coursework:* Machine Learning, Artificial Intelligence, Convex Optimization, Computer Vision, Deep Reinforcement Learning, Operating Systems, Computer Networking, Database Systems.

## Publications

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### Learning on Distributed Traces for Datacenter Storage Systems

*Giulio Zhou*, Martin Maas. Conference on Systems and Machine Learning (MLSys), 2021.

### Multi-Vector Attention Models for Deep Re-ranking

*Giulio Zhou*, Jacob Devlin. Empirical Methods in Natural Language Processing (EMNLP), 2021.

### Multi-Task Learning for Storage Systems

*Giulio Zhou*, Martin Maas. Workshop on ML for Systems at NeurIPS, 2019.

### Scaling Video Analytics on Constrained Edge Nodes

Christopher Canel, Thomas Kim, *Giulio Zhou*, Conglong Li, Hyeontaek Lim, David G. Andersen, Michael Kaminsky, Subramanya R. Dulloor.

Conference on Systems and Machine Learning (SysML), 2019.

### Clipper: A Low-Latency Online Prediction Serving System

Daniel Crankshaw, Xin Wang, *Giulio Zhou*, Michael J. Franklin, Joseph E. Gonzalez, Ion Stoica.

USENIX Symposium on Networked Systems Design and Implementation (NSDI), 2017.

## Industry Experience

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**Google Inc., NLP Team** (Research Intern, Host: Jacob Devlin) 06/2020 – 09/2020

- Developed efficient models for text retrieval using lightweight attention mechanisms for query-document scoring.

**Google Inc., Brain Team** (Research Intern, Host: Martin Maas) 05/2019 – 08/2019

- Devised a method for learning storage policies from distributed traces using Transformers.
- Demonstrated end-to-end SSD caching and SSD/HDD file placement improvements in simulation.

**Google Inc., Keyboard Team** (Software Engineer) 03/2017 – 08/2017

- Created infrastructure to support analytics data pipelines and interactive data visualization.
- Automated the generation, management and evaluation of Google Keyboard test sets.

**Google Inc., Display Ad Automation Team** (Software Engineering Intern) 05/2015 – 08/2015

- Built a backend pipeline for automated text-to-image keyword matching for internationalized display ads.

## Teaching Experience

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10-701, Introduction to Machine Learning (Spring 2020)

CS 189/289A, Introduction to Machine Learning (Fall 2016)

CS 61BL, Data Structures and Programming Methodology (Summer 2016)

CS 61B, Data Structures and Algorithms (Spring 2016)

## Technical Skills

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**Programming Languages:** Python, Java, C, C++

**Software/Frameworks:** Tensorflow, PyTorch, OpenCV, Apache Beam