JEFFREY ZHANG
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EDUCATION

University of Illinois at Urbana-Champaign, Urbana, IL
PhD Candidate Computer Science – Computer Vision   **August 2018 – Current**
Major GPA: 4.0/4.0

University of California, Berkeley, Berkeley, CA
BA Computer Science   **August 2014 - May 2018**
Major GPA: 3.8/4.0

RELATED EXPERIENCE

University of Illinois at Urbana-Champaign, Urbana, IL
PhD Research Assistant   **August 2018 – Current**
Research assistant advised by Prof. Svetlana Lazebnik in computer vision. Research projects on generating textual explanations for network decisions on VQA tasks. Currently researching class-based incremental learning in collaboration with Dr. Ahmet Iscen and Dr. Cordelia Schmid from Google AI. Published paper to ECCV 2020.

Amazon, Seattle, WA
Applied Research Intern   **May 2020 – August 2020**
Research intern at AWS' Amazon Rekognition research group. Researched identifying confounding factors and developed an interpretable masking models for classification tasks. Revealed confounding factors in major medical chest-xray datasets. Mentored by Erhan Bas.

Tencent AI Lab, Bellevue, WA
Research Intern   **May 2019 – August 2019**
Research intern at Tencent AI Lab working in image/video caption grounding. Improved grounding performance from SotA paper Grounded Video Description (CVPR 2018). Mentored by Liwei Wang.

University of California, San Francisco, San Francisco, CA
Deo Lab - Undergraduate Researcher   **January 2017 – August 2018**
Researcher at UC Berkeley and UCSF under Prof. Rahul Deo. Researched computer vision and machine learning techniques to diagnose heart conditions and abnormalities in echocardiograms (ultrasound videos of the heart). Published first-author paper to Circulation and a second paper to

University of California, Berkeley, Berkeley, CA
HART Lab - Undergraduate Researcher   **July 2016 – March 2017**
Researcher at UC Berkeley under Prof. Ruzena Bajcsy. Worked on ultrasound and MRI image segmentation to build human dynamical models for building exoskeletons. Developed automated pipeline for MRI bone segmentation.

Vercury Inc., Palo Alto, CA
Computer Vision Intern   **May 2015 – August 2015**
Summer internship at Vercury Inc. on digital watermarking algorithms for concealing information in images. Researched two new robust watermarking algorithms against print-scan attacks.
Developed an image search algorithm based on NV (nearest vector) trees for millions of images.

PUBLICATIONS

Memory-Efficient Incremental Learning Through Feature Adaptation
Conference paper proposing feature adaptation on stored features to prevent catastrophic forgetting in incremental learning. Published in ECCV, 2020. Advised by Prof. Svetlana Lazebnik, Dr. Cordelia Schmid   2020

Automated and Interpretable Patient ECG Profiles for Disease Detection, Tracking, and Discovery
Journal paper utilizing segmentation models for ECG diagnostics. Published in Circulation: Cardiovascular Quality and Outcome Vol 12, Issue 9. Advised by Rahul C. Deo, Prof. Pulkit Agrawal   2019

Fully Automated Echocardiogram Interpretation in Clinical Practice
First-name author on journal paper for automated diagnosis of diseases from echocardiograms using computer vision. Published in Circulation Vol 138, Issue 16. Advised by Dr. Rahul Deo, Prof. Pulkit Agrawal, Prof. Alexei Efros.   2018

TECHNICAL SKILLS

Python, Java, C/C++, Pytorch, Tensorflow, Caffe, Matlab, Latex