

Jason R. Parham

PH.D. STUDENT · COMPUTER VISION

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Education

Rensselaer Polytechnic Institute

DOCTOR OF PHILOSOPHY · COMPUTER SCIENCE · COMPUTER VISION

Troy, NY

Aug 2012 - PRESENT

- Advised by Dr. Charles V. Stewart, Computer Science Department Chair
- Anticipated Graduation: May 2019
- Cumulative GPA: 4.0

Rensselaer Polytechnic Institute

MASTER OF SCIENCE · COMPUTER SCIENCE · COMPUTER VISION

Troy, NY

Aug 2012 - Dec 2015

- Master's Thesis: "Photographic Censusing of Zebra and Giraffe in the Nairobi National Park"

Pepperdine University

BACHELOR OF SCIENCE · COMPUTER SCIENCE / MATHEMATICS

Malibu, CA

Aug 2008 - May 2012

Experience

Kitware

COMPUTER VISION RESEARCH & DEVELOPMENT ENGINEER

Clifton Park, NY

August 2017 - PRESENT

- Pioneered state-of-the-art performance in overhead object detection for secret-level government contracts and using space-ready platforms
- Experience writing and winning multiple intelligence community SBIR proposals and organizing a multi-million dollar DARPA bid

Kitware

COMPUTER VISION RESEARCH SUMMER INTERN

Clifton Park, NY

May 2015 - July 2017

- Designed and developed deep learning Python library (KWCNN) using Lasagne / Theano with automated network definition and model training
- Designed and developed aerial change detection system using supervised fully-convolutional neural networks and unsupervised auto-encoders

Rensselaer Polytechnic Institute

GRADUATE RESEARCH ASSISTANT

Troy, NY

Aug 2014 - May 2017

- Designed and developed IBEIS (Image Based Ecological Information System) Image Analysis system as member of inter-disciplinary collaborative research team between Rensselaer Polytechnic Institute, Princeton University, University of Illinois-Chicago, and WildMe
- Computer vision research emphasis is in object localization, classification, detection, and segmentation in the real world

Rensselaer Polytechnic Institute

GRADUATE TEACHING ASSISTANT

Troy, NY

Aug 2012 - PRESENT

- Head / administrative TA for introductory Computer Science I (Python) and graduate-level Computer Vision courses; experience as a lab and office hour instructor, managing web-based grading system (Submittity) and automated grade distribution
- Experience managing a team of 11 TAs, 21 sections, and over 650 concurrent students across 6 semesters and multiple professors

Self-Employed

FULL STACK WEB DEVELOPER

Cohoes, NY

Aug 2012 - Dec 2016

- Designed and developed customized, web-based applications, including experience with WordPress CMS

Publications

An Animal Detection Pipeline for Identification

IEEE WINTER CONFERENCE ON APPLICATIONS OF COMPUTER VISION (WACV 2018)

Lake Tahoe, CA

Mar 2018

REDACTED (Declassified in 2031)

MILITARY SENSING SYMPOSIUM · NATIONAL SYMPOSIUM ON SENSOR AND DATA FUSION (NSSDF 2017)

Springfield, VA

Oct 2017

Wildbook: Crowdsourcing, Computer Vision, and Data Science for Conservation

BLOOMBERG DATA FOR GOOD EXCHANGE 2017

New York, NY

Sep 2017

Animal Population Estimation Using Flickr Images

ACM WEB SCIENCE CONFERENCE 2017 (WEBSCI'17) · 2nd INTERNATIONAL WORKSHOP ON THE SOCIAL WEB FOR ENVIRONMENTAL AND ECOLOGICAL MONITORING (SWEEM 2017)

Troy, NY

Jun 2017

Efficient Generation of Image Chips for Training Deep Learning Networks

PROCEEDINGS OF SOCIETY OF PHOTO-OPTICAL INSTRUMENTATION ENGINEERS (SPIE) · AUTOMATIC TARGET RECOGNITION (ATR)
XXVII

Anaheim, CA

Apr 2017

Animal Population Censusing at Scale with Citizen Science and Photographic Identification

AAAI SPRING SYMPOSIUM SERIES 2017 (SSS-17) · AI FOR THE SOCIAL GOOD

Stanford, CA

Mar 2017

The Great Grevy's Rally: The Need, Methods, Findings, Implications and Next Steps

SELF-PUBLISHED · PRINCETON UNIVERSITY

Nairobi, Kenya

Sep 2016

Detecting Plains and Grevy's Zebras in the Real World

IEEE WINTER CONFERENCE ON APPLICATIONS OF COMPUTER VISION WORKSHOPS (WACVW 2016)

Lake Placid, NY

Mar 2016

IBEIS: Image-Based Ecological Information System: from Pixels to Science and Conservation

BLOOMBERG DATA FOR GOOD EXCHANGE 2015

New York, NY

Sep 2017

Photographic Censusing of Zebra and Giraffe in the Nairobi National Park

MASTER'S THESIS · RENSSELAER POLYTECHNIC INSTITUTE

Troy, NY

Dec 2015

The Great Zebra and Giraffe Count: The Power and Rewards of Citizen Science

SELF-PUBLISHED · KENYA WILDLIFE SERVICE

Nairobi, Kenya

Jul 2015

Presentations

Animal Population Censusing at Scale with Citizen Science and Photographic Identification

PRESENTER & POSTER · AI FOR THE SOCIAL GOOD

Stanford, CA

Mar 2017

Tech Lunch with Computer Vision Research Intern Jason Parham on Unsupervised Deep Learning with KWCNN

PRESENTER · KITWARE SUMMER 2016 TECH TALK LUNCH SERIES

Clifton Park, NY

Aug 2016

Detecting Plains and Grevy's Zebras in the Real World

POSTER · COMPUTER SCIENCE ACCEPTED STUDENTS DAY POSTER SESSION

Troy, NY

Apr 2016

Detecting Plains and Grevy's Zebras in the Real World

PRESENTER · 2ND WORKSHOP ON AUTOMATED ANALYSIS OF VIDEO DATA FOR WILDLIFE SURVEILLANCE

Lake Placid, NY

Mar 2016

Tech Lunch with Computer Vision Research Intern Jason Parham introducing the KitWare Convolutional Neural Network (KWCNN) Python Module with Live Demos

PRESENTER · KITWARE SUMMER 2015 TECH TALK LUNCH SERIES

Clifton Park, NY

Aug 2015

Photographic Censusing of Zebra and Giraffe in the Nairobi National Park

PRESENTER · MASTER'S THESIS DEFENSE

Troy, NY

Aug 2015

Citizen Science Data Collection with Processing Bottlenecks

POSTER · COMPUTER SCIENCE ACCEPTED STUDENTS DAY POSTER SESSION

Troy, NY

Apr 2015

Committees

IEEE Winter Conference on Applications of Computer Vision (WACV) 2018

WACV 2018 CONFERENCE PAPER REVIEWER

Lake Tahoe, CA

Mar 2018

IEEE Winter Conference on Applications of Computer Vision (WACV) 2017

WACV 2017 CONFERENCE PAPER REVIEWER

Santa Rosa, CA

Mar 2017

Memberships

United States Government, National Geospatial-Intelligence Agency (NGA)

ACTIVE *Interim* SECRET-LEVEL SECURITY CLEARANCE

Clifton park, NY

Dec 2017 - PRESENT

Association for the Advancement of Artificial Intelligence (AAAI)

STUDENT MEMBER

Troy, NY

Jan 2017 - PRESENT

The Computer Vision Foundation (CVF)

MEMBER

Troy, NY

Jan 2017 - PRESENT

Institute of Electrical and Electronics Engineers (IEEE)

STUDENT MEMBER

Troy, NY

Mar 2016 - PRESENT