

# 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 2018
- 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

## Projects

### IBEIS Computer Vision System / Wildbook Image Analysis Plug-in

Python / C / C++ / SQLite

Lasagne / Theano / CUDA

GITHUB.COM/WILDBOOKORG/IBEIS

Aug 2013 - PRESENT

- A stand-alone image and algorithm manager for computer vision image processing; integrates with Wildbook wildlife system via REST API
- Prototypes used at three conservancies in Kenya and during the GZGC (Great Zebra and Giraffe Count) and GGR (Great Grevy's Rally) censusing rallies

### Intercheck

Python

GITHUB.COM/BLUEMELLOPHONE/INTERCHECK

Feb 2015 - PRESENT

- An automated SpeedTest logger and graphing web interface for monitoring Internet connectivity; designed for use on Raspberry Pi 3

### Submittly · Rensselaer Center for Open Source Software (RCOS)

PHP / HTML / CSS / MySQL

JavaScript / jQuery / AJAX

GITHUB.COM/SUBMITTY/SUBMITTY

Sep 2012 - PRESENT

- A web-based homework submission system with automated code execution, auto-grading, and rubric-based TA grading interface

### Cryptographically Secure E-Voting Protocol

Python

GITHUB.COM/BLUEMELLOPHONE/JDKK-PROTOCOL

Mar 2013 - May 2013

- A scalable, secure e-voting protocol that is hardened against a malicious election judge and colluding voters

### Cryptographically Secure ATM Communication Protocol

C++

GITHUB.COM/BLUEMELLOPHONE/JTM-PROTOCOL

Sep 2012 - Nov 2012

- A secure communication protocol for use between a bank and ATM that uses asymmetric and symmetric encryption

## Experience

### Kitware

Clifton Park, NY

COMPUTER VISION RESEARCH INTERN

May 2015 - PRESENT

- 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

Troy, NY

GRADUATE TEACHING ASSISTANT

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 (Submittly) 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

Cohoes, NY

FULL STACK WEB DEVELOPER

Aug 2012 - PRESENT

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