# Evan Widloski

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## Education

**University of Illinois Urbana-Champaign**                                   2018–present

PhD student, DSP and remote sensing, Computational optics. Advised by Farzad Kamalabadi

**Purdue University**                                                          2013–2017

BSEE Electrical Engineering, BS Mathematics

## Experience

**NASA Milli-Arcsecond Imaging with Smallsat Enabled Super Resolution (MAS)** – research assistant          2018–present

Built computational framework for simulating forward optical system with photon sieve.

**NASA VIrtual Super-resolution Optics with Reconfigurable Swarms (VISORS)** – research assistant          2019–present

Developed registration algorithm for aligning and recovering smallsat science data under drift and extreme noise.

**UIUC Senior Design** – teaching assistant                                    2018–present

Technical advisor for senior level capstone course in design

**Spooky Action** – Cofounder                                                  2018–present

Developed high powered tether with integrated data downlink for multirotor capable of multi-day flight

**Texas Instruments** – Field Applications Engineer                            2017–2018

Implemented multitap FIR filter on 8051 core micros. Stability analysis of buck/boost converters

**Qualcomm** – CoreBSP Security Engineer                                        2015

Headed security SDK project to emulate mobile biometric hardware

## Technical Skills

### Engineering

Embedded signal processing, transmission lines – 2 years

AVR Microcontrollers – 5 years

KiCAD – 6 years

### Computing

Python, Bash, JS and friends – 5+ years

Octave, LaTeX, C – 3 years

## Selected Classwork

**ECE438** – Signal Processing and Systems
**ECE558** – Digital Imaging
**ECE461** – Digital Communication
**ECE561** – Computer Vision

**ECE566** – Computational Inference
**MA514** – Numerical Analysis
**ECE513** – Vectorspace Linear algebra
**ECE534** – Random Processes

## Achievements and Awards

Purdue University Dean's List                                          2015, 2016, 2017

Rappaport Wireless Communication Scholarship                                   2016

RCA Zworykin Scholarship                                                       2014

## Extracurricular

**Purdue Orbital Team** – Electrical lead                                                2016–2017

Designed mesh node for high–altitude balloons with custom APRS modem based on AVR

**Purdue IEEE ROV Team** – Electrical lead                                               2013–2015

Designed compact, addressable motor controller for submersible vehicle. Built powerline transmission capable of delivering 2 NTSC video feeds with bidirectional data stream.

**Purdue Linux Users Group** – President                                                 2013–2017

Organized meetings and lectured on topics such a Python, regexes, init systems, Buildroot, networking.

## Publications

**Optimal Measurement Configuration in Computational Diffractive Imaging** – IEEE ICIP (pending review)           2020

## Presentations

**A Tour of KiCAD** – UIUC Senior Design                                                 2020

**Introduction to Postscript (the printer language)** – UIUC Linux Users Group          2018

**Electrical Series – Board Layouts in Eagle** – Purdue EPCS202                          2017

**Electrical Series – Schematics in Eagle** – Purdue EPCS201                             2016

**Becoming a Vim Power User** – Purdue Linux Users Group                                 2016

**Git Version Control** – Purdue Linux Users Group                                       2015

**Grokking Bash** – Purdue Linux Users Group                                             2015

**Regular Expressions Primer** – Purdue Linux Users Group                                2014

**Linux File Permission** – Purdue Linux Users Group                                     2014