# Kyle Patrick Salitrik

#### PROGRAMMER · ELECTROMECHANICAL ENGINEE

#### **ADDRESS**

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## Work Experience \_\_\_\_\_

### The Pennsylvania State University

Undergraduate Research Intern

University Park, PA, USA MAY 2017 - PRESENT

- Programming | Python, Keras, Tensorflow, CNTK
- Developed Python scripts for automating and randomizing software tests
- Trimmed unnecessary libraries from deployed software
- Prototyped Logistic and Linear regression Machine Learning Algorithms in Matlab
- Used Keras with Tensorflow & CNTK to prototype Neural Networks

### **Advanced Acoustic Concepts**

Uniontown, PA, USA

MAR 2015 - JAN 2017

ELECTROMECHANICAL ENGINEER

- Software & Hardware Engineering | Test Automation, Arduino, Python, BASH, AutoCAD Electrical
  - Utilized BASH scripts and Knoppix to automate server tests by printing status information to a built-in LCD panel
  - Automated mprime CPU stress tests via SSH using Python scripts to deploy the service and collect logs
  - Designed test fixtures using Arduino microcontrollers to automate hardware testing of CCAs using bitwise control of ICs
  - · Created Arduino array to deliver real-time, self-correcting PWM pulse generation by polling output
- Mechanical Engineering | Solidworks, Inventor
  - Developed adaptable 3-axis vibration test fixture for up to 2U, 30-inch servers and frequency range up to 2kHz
  - · Created vibration test fixture to accommodate various sizes of Hammond enclosures for low-frequency MIL-SPEC testing
  - Designed modular truss structure for supporting mobile winches on ships with the goal of being hot-swappable for missions

#### The Pennsylvania State University

University Park, PA, USA

AUG 2012 - DEC 2012

- TEACHING INTERN (STATICS)
- Held office hours to help students comprehend subject matter and complete homework
- Assisted with creation of exam problems and proctored exams

## Projects \_\_\_\_\_

Oculus Drift HackYSU

C#, UNITY FEB 2017

• OculusDrift was an experiment in audio-visual entrainment employing Unity (C#) and the Oculus Rift. The purpose of the project was to create a relaxing environment by using binaural audio and simulating the user floating through a star field.

#### **Education**

## The Pennsylvania State University

University Park, PA, USA

B.S. IN Engineering Science & Computational Data Science

Expected: Aug. 2019

- Minors: Engineering Mechanics, Mathematics
- Thesis: Effects of Print Orientation, Fill Density and Size on 3D Printed Structures

## Certifications \_\_

MAY 2016 Solidworks Essentials   Prism Engineering	Pittsburgh, PA, USA
APR 2016 Siemens TIA Portal Programming 2   AWC, Inc.	Houston, TX, USA
AUG 2015 IPC J-STD 001   Advanced Acoustic Concepts   Expires: AUG 2017	Uniontown, PA, USA
DEC 2015 NFPA 70E   Steel City Safety   Expires: DEC 2017	Pittsburgh, PA, USA

# **Professional Memberships**

IEEE	Institute of Electrical and Electronics Engineers, Computer Society	2017
ACM	Association for Computing Machinery	2017
IGDA	International Game Developers Association	2017
ASME	The American Society of Mechanical Engineers	2017