LIEV BIRMAN
Phone: (786) 859-1571
Mailing Address: 16546 NE 26 AVE #3G
North Miami Beach, FL, 33160

Github: https://github.com/lievbirman/
(projects mentioned here in **Work_Examples** repository)
Email: birmanliev@gmail.com

Education

BS University of Wisconsin- Madison, **Physics** May 2017

Profile: Python programmer and engineering technician looking to apply skills towards data and population quantification problems in biodiversity conservation. Relocating to West Coast or D.C. area.

Qualifications

- 2+ years of python scripting with strong foundation in object-oriented programming.
- Previous NASA internship in remote sensing data analysis (OCO-2 @ JPL).
- Familiarity with classical and deep-learning based segmentation.
- Great technical presentation skills, and Basic 3 A2 fluency in Spanish and fluent Russian

Relevant Experience

Project: Cell Culture Platform Development, University of Miami **Sept 2018-Present**

- Developed control system, graphical user interface, and supporting modules in Python using a Model-View-Control design structure with a fully object-oriented approach.
- Designed casing and sample collection system in SolidWorks as well as the power electronics in Eagle CAD, and manufactured parts using a CNC laser-cutter.

Project: Multiple Robotics Perception Projects, Udacity.com **May 2018**

- Set up a SegNET deep neural network for pixel-by-pixel image classification using the Keras Python library to solve a robotics perception task.
- Wrote standard scripts to segment images and automatically classify pixels based on statistical ranges and performed various filtering and calibration exercises.

Project: CO2 Plume Detection, Orbiting Carbon Observatory 2, NASA-JPL **Summer 2016**

- Developed a suite of functions to geo-locate Carbon Dioxide plumes in OCO-2 data, calculate the recurrence frequency of said plumes, and map results in Python
- Worked with KML and h5 file formats.

Sensor Experience

- Used photodiode and oscilloscope to measure light-intensities and classify performance of a precision optical shutter. (Work done at Mark Saffman's Lab UW-Madison)
- Worked with thermocouples, electromagnets to perform magnetic resonance imaging, and laser with polarizers to conduct a classic quantum mechanical experiment.

Languages/Software: Python, Mathematica, Java, SolidWorks, Eagle, Jupyter Notebook