

# Boris Ermakov-Spektor

COMPUTER ENGINEER · SOFTWARE DEVELOPER

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## Skills

**Programming** C++, Javascript, HTML, Elixir, Python, Markdown, Java, Bash, LaTeX, MATLAB  
**Software** Linux, Mac OS, Windows, SolidWorks, Git, Cmake  
**Languages** English, Russian(Conversational)

## Education

### University of Florida

Gainesville, Florida, USA

B.S. IN COMPUTER ENGINEERING

Aug. 2017 - 2021

- GPA: 4.00/4.00
- Completed Coursework: Programming Fundamentals I/II, Applications of Discrete Structures, Computer Organization, Data Structures and Algorithms, Digital Logic and Computer Systems, Computational Linear Algebra

## Employment

### Data Structures TA

Gainesville, Florida, USA

UF CISE

Aug. 2019 - PRESENT

- Lead discussion section once a week to explain class topics and proctor weekly quiz.
- Hold weekly office hours to assist students with class projects and clarify content.

### Software Engineering Intern

Miami, Florida, USA

MATRIX LABS

May. 2019 - Aug. 2019

- Enabled NFC support for the MATRIX platform through designing and developing a C++ abstraction with Cmake.
- Contributed to MATRIX community with up to date documentation.
- Conducted QA testing for crucial services.

### Computer Organization TA

Gainesville, Florida, USA

UF CISE

Jan. 2019 - May. 2019

- Lead discussion section once a week to explain class topics and proctor weekly quiz.
- Hold weekly office hours to assist students with class projects and clarify content.
- Create guides for setting up QEMU emulator.

### Software Engineering Intern

Miami, Florida, USA

AdMOBILIZE

May. 2018 - Jun. 2018

- Created the majority of end-user documentation with examples in Markdown for entire C++ API.
- Configured Linux and Windows base systems for deployment.
- Wrote scripts in Bash for improving device provisioning and setup, reducing deployment time by half.
- Added user-facing features to C++ API, simplifying user experience.
- Conducted thermal testing on SOC's for product design.
- Worked with development team to help implement and test improvements to mission-critical software.

### Hardware Contributor

Miami, Florida, USA

AdMOBILIZE

Aug. 2015 - Jun. 2017

- Optimized deployment of software onto Linux-based devices.
- Lead inventory management and device assembly.
- Wrote in-house documentation detailing device assembly.
- Developed and tested improvements in device assembly.

## Extracurricular Activity

### MIL UF (Machine Intelligence Lab)

Gainesville, Florida, USA

MEMBER

Aug. 2018 - PRESENT

- Gained knowledge in ROS (Robot Operating System) and Python.
- Implemented the communications protocol for use in the RobotX competition
- Modified judging GUI using Qt and C++

## Projects

### Light & Fan Dimmer

PERSONAL PROJECT

- Made an IOT light switch using an ESP32, a MATRIX Voice dev board, and a Triac controller.
- Used Elixir and Phoenix to host server on Raspberry Pi which communicates with ESP32 over Websockets.
- Created a GUI in React to control Light and Fan connected to Triac.

### Slack Bot

PERSONAL PROJECT

- Wrote a slack bot for text manipulation commands.
- Used Javascript with Serverless framework, and hosted bot on AWS Lambda.
- Learned Regex for parsing slack tokens.

### Symbolic Calculator

CLASS PROJECT

- Team project where we designed a symbolic calculator using fractions for computation instead of floating point.
- Implemented postfix notation parser and helped implement shunting yard algorithm.