Boris Ermakov-Spektor

Computer Engineer · Software Developer

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Education

University of Florida *Gainesville, Florida, USA*

B.S. in Computer Engineering *Aug. 2017 - May 2022*

- GPA: **3.94/4.00**
- Completed Coursework: Computer Organization, Software Engineering, Signals and Systems, Digital Logic, Circuits, Penetration Testing, Performant Python, Programming Language Concepts, **Operating Systems**, **Data Structures and Algorithms**, **Microprocessor Applications**, **Digital Design**
- In-Progress Coursework: **Databases**, **Algorithm Design**, **Reconfigurable Computing**, **Real-time DSP Applications**

Employment

Undergraduate Teaching Assistant *Gainesville, Florida, USA*

UF CISE & ECE *Jan. 2019 - PRESENT*

- Former teaching assistant for Computer Organization, Data Structures, and Digital Logic.
- Current teaching assistant for Operating Systems.
- Held office hours, taught lab sections, and created guides.

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.

Software Engineering Intern *Miami, Florida, USA*

AdMobilize *May. 2018 - Aug. 2018*

- Created the majority of end-user documentation with examples in Markdown for entire C++ API.
- 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.
- Worked with development team to help implement and test improvements to mission-critical software in Node.JS.

Hardware Contributor *Miami, Florida, USA*

AdMobilize *Aug. 2015 - Jul. 2017*

- Optimized deployment of software onto Linux-based devices by using cloning - speeding up deployment by 50%.
- Lead inventory management and device assembly.
- Wrote in-house documentation detailing device assembly.
- Developed and tested improvements in device assembly that allowed for speedups of 20%.

Extracurricular Activity

MIL UF (Machine Intelligence Lab) *Gainesville, Florida, USA*

Member *2018*

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

Projects

myGNV Resource Finder

Open Source Project *2019 - PRESENT*

- Developed a resource finder for the City of Gainesville.
- Used Javascript + React + Webpack for the frontend, and Typescript + MongoDB + NestJS for the backend.
- Continue to develop and improve the application to help City of Gainesville residents.

Pascal Interpreter

Class Project *2020*

- Implemented a Pascal language parser and interpreter using Java and ANTLR.
- Interpreter capable of recursion, proper scoping, and imports.

MIPS-like Microprocessor

Class Project *2020*

- Designed and implemented a MIPS-like microprocessor in VHDL.
- Gained experience in testbenches, simulations, and debugging.

Slack Bot

Personal Project *2018*

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

Skills

Computer Lang.	C++(Skilled), Typescript/Javascript(Skilled), Python(Familiar), Java(Familiar), VHDL(Familiar), MATLAB(Familiar), HTML(Familiar), Bash(Familiar), Haskell(Familiar)
Frameworks	React, Express, NestJS, Qt, Flask
Software	Quartus, Modelsim, Webpack, SolidWorks, Git, Cmake, LaTeX, Markdown, Linux, macOS, Windows