

Igor Barinov

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EXPERIENCE

BRANDEIS UNIVERSITY | RESEARCH TECHNICIAN

June 2019 – Present | Waltham, MA

- Redesigned primary data analysis software written in MATLAB to improve workflow, reduce bugs, and expand feature set
- Started development of an additional MATLAB program to summarize experimental data and perform statistical tests
- Started modifying and integrating a C# program into our current workflow with the goal of migrating to a faster and more up-to-date platform
- Improved productivity by setting up version control with Git and documenting existing and new software

BRANDEIS UNIVERSITY | LAB VOLUNTEER

August 2019 – May 2019 | Waltham, MA

- Designed and performed statistical tests in coordination with team experiments
- Presented findings to help in discovering significant relationships among multiple experimental variables

PROJECTS

GROUPSYNTH Feb 2019

- A collaborative music synthesis website made with JavaScript, Firebase, and OpenCV
- Music creation uses hand gestures captured by a webcam and processed with OpenCV

GROUPME BOT Oct 2019

- A bot made for the chatting app "GroupMe" made with JavaScript and deployed with Heroku on a Node.js back-end
- The bot responded to keywords in messages rather than commands, supporting media generation and sharing

MACHINE LEARNING IN C++ Nov 2019

- A combination of math and machine learning libraries written in C++ inspired by NumPy and Tensorflow
- Implemented n-dimensional arrays, expression graphs, and linear models

"DSCRIPT" PROGRAMMING LANGUAGE Oct 2019

- An interpreted programming language written in Rust with the goal of type safety, concurrency, and ease of use
- Implemented lexer and parser

ALGORITHM LIBRARY IN RUST Aug 2020

- A collection of data structures and algorithms written in Rust
- Implemented linked lists, graphs, and graph algorithms

EDUCATION

RENSSELAER POLYTECHNIC UNIVERSITY

| SOPHOMORE UNDERGRADUATE

September 2019 - Present | Troy, NY

Bachelor of Science in Computer Science

Minor in Economics

COURSEWORK

CORE

Introduction to Algorithms

Data Structures

Computer Organization

Foundations of Computer Science

MISCELLANEOUS

Introduction to Differential Equations

Intermediate Macroeconomic Theory

Econometrics

SKILLS

PROGRAMMING

Fluent in:

C/C++ • MATLAB • Rust

JavaScript • HTML • CSS

Familiar with:

C# • Java • Python

TECHNOLOGY

Git/Github • Linux • Windows

Node.js • Express • Rails

MongoDB • PostgreSQL

Machine Learning

ACHIEVEMENTS

2024 BICENTENNIAL AWARD

| Scholarship, 2019, 2020

RENSSELAER LEADERSHIP AWARD

| Scholarship, 2019

MIT BLUEPRINT SR. DIVISION

| 1st Place, 2019

PERSONAL INTERESTS

Finance and Investment

Ultimate Frisbee

Fitness