

# Ritwik Dutta

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## Summary

- Looking for a full-time position in 2020
- Experienced in full-stack software development.
- University of Massachusetts Amherst, Class of 2020, BS in Mathematics, Minor in CS
  - Degree Concentrated in Statistics and Applied Math

## Skills

- Programming                  Python, Java, C/C++, PostgreSQL, Redis
- Data Science                  Tableau, Splunk, Matlab, NumPy, SciPy, Spark, JupyterHub
- Web Development              HTML/CSS, JavaScript, jQuery, Bootstrap, Flask, Vue, REST design
- IDEs/VCS                        Visual Studio, Git, Eclipse, IntelliJ, PyCharm
- Deep Learning                 Keras, Tensorflow

## Professional Experience

<b>Apple</b>	<a href="http://apple.com">apple.com</a>	May - Aug. 2019	<i>Languages used:</i> Python, Scala
		May - Sept. 2018	
		May - Sept. 2017	
<ul style="list-style-type: none"><li>• Worked in the Siri Advanced Development Group and created a streamlined system for analyzing machine learning data and collecting metrics to be used for ML model improvements.</li><li>• Created a platform for analysis of hardware data, visualization of key information, and collection &amp; collation of data from various internal sources to provide a centralized, easy-to-access data store.</li><li>• Created a visualization dashboard to highlight software quality and test status across company-wide projects.</li></ul>			
<b>Nod Labs</b>	<a href="http://nod.com">nod.com</a>	May - Aug. 2016	<i>Languages used:</i> C++, WinAPI, Python
		<ul style="list-style-type: none"><li>• Extended Nod's robotic testing platform for Virtual Reality tracking sensors by adding variable-speed movement and recorded motion playback.</li><li>• Created C++ plugins that allowed product extensibility to the OSVR and Unreal platforms using the DirectX and Unreal Engine standard libraries.</li><li>• Presented work to executive management of partner company.</li></ul>	

## Lytmus

[lytmus.io](http://lytmus.io)

Oct. 2015 - Jan. 2015

*Languages used:*  
Python, JS, SQL, Java

- Tested a virtual-machine based platform that allowed applicants to demonstrate their knowledge of algorithms and proficiency in multiple programming languages to potential employers.
- Solved test problems and analyzed their effectiveness to help increase test quality.

## Academic Research

### Carnegie Mellon University

Summer 2015

Analyzed IEEE Xplore citation data to determine fairness of scientific collaboration networks in academic conferences.

Paper: <http://ritwikd.com/assets/pdf/cmupaper.pdf>

### Georgia Institute of Technology

Summer 2014

Developed a smart-home sensor-based monitoring and database infrastructure for long-term care of patients with disabilities.

Paper: <http://ritwikd.com/assets/pdf/gtconf.pdf>

Software: <https://github.com/ritwikd/gt-dashboard>

## Relevant Coursework

Discrete Math

Statistics I & II

Multivariable Calculus I & II

Differential Equations

Linear Algebra I & II

Numerical Methods

Computational Probability

Group Theory

Mathematical Modeling

Functional Programming

Computer Architecture

Intro to Data Structures and Algorithms

Algorithms II

Technical Writing

Introduction to Linear Regression

Statistical Computing

## Projects

- PiMuPhi      Real-time audio visualization with RGB lighting.      [GitHub](#)
- SummonBot      Reddit scanner to notify users when mentioned.      [GitHub](#)
- K.A.R.E.      GitHub recommendation engine.      [GitHub](#)

## Personal

- American citizen, native English speaker.
- Bay Area native