Yogi **Birbal**

✉ ybirbal1998@gmail.com | 🏠 www.yogibirbal.github.io | ⌨ YogiBirbal | in ybirbal

Education

Stony Brook University   *Aug. 2016 - Dec. 2019*
B.S. in Computer Science

- GPA: 3.76
- Deans List
- NYS STEM Incentive Scholarship Recipient

Experience

Amazon   *Jun. 2019 - Aug. 2019*
Software Development Engineer Intern

- Developed a Spring MVC web application to automate and resolve workflows regarding current customer issues.
- Implemented internal Java service to display decrypted data necessary for user diagnosis.

Mutual of America   *May 2018 - Jul. 2018*
Software Development Engineer Intern

- Implemented a PowerShell program that determines who has access to the company's internal network.
- Modified existing Java back-end service to gather and store access statistics to a relational database.
- Revised AngularJS front-end to visualize company access statistics.

Stony Brook University   *Jan. 2018 - Dec. 2018*
Teaching Assistant: System Fundamentals

- Taught classes of ~30 students the concepts of computer organization, MIPS architecture, and CPU design.
- Held weekly office hours and answered questions on Piazza for over 150 students.

Projects

Ditto   *Mar. 2019 - May 2019*
Python | x86

- A polymorphic shellcode generation engine that converts an existing shellcode into an equivalent shellcode completely different at the byte level.
- Encrypted shellcode with a random key and prepended shellcode with a decryption routine, resulting in a different sequence of bytes per instance.

Axel   *Oct. 2018 - Dec. 2018*
C | Flask

- A Linux antivirus software that detects and prevents malicious files from being executed.
- Hacks the linux kernel to run antivirus software before a program is executed, preventing any malicious program from being ran directly.
- Receives blacklist of known malicious sequence of bytes through an online server, capable of updating at any instance.

FaceMe   *Jul. 2018 - Aug. 2018*
Node.js | AWS IoT

- A computer vision application for a security camera that allows it to identify people with AWS DeepLens.
- Added ability for the camera to send an SNS notification to the owner via AWS IoT.

Ecran   *Apr. 2018*
C

- A terminal multiplexer that allows users to create, access, and control multiple sessions.
- Implemented status bar for terminal statistics.