# **Alok Tripathy**

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**Objective** 

To obtain a software engineering internship for 2016.

**Education** 

Georgia Institute of Technology | Computer Science | Atlanta, GA | Aug 2015 - May 2019

Sidney Goldin Scholarship for "outstanding leadership abilities"

Princeton University | Dual Enrollment | Princeton, NJ | Sept 2014 - May 2015

Algorithms and Data Structures, Theory of Algorithms

**Skills** 

**Computer:** Java, C, JavaScript, Python, HTML5, CSS3,

Reverse Engineering, Binary Exploitation, Cryptography,

Algorithms, Data Structures, Computer Security, Machine Learning, Linux command line

Miscellaneous: Baseball, Violin

**Work Experience** 

### Research Assistant at High Performance Computing Lab | Georgia Tech

(Nov '15 - present)

- Helps design parallel and streaming graph algorithms.
- Works to improve load balancing for parallel algorithms.
- Implements these graph algorithms on multi-core systems in C.

### Software Developer Intern at Bloomberg L.P. | Princeton, NJ

(Feb '15 - Jun '15)

- Designed and implemented machine learning features to extract tables from PDF files in Java.
- Helped design framework for representing PDF files internally.
- Wrote machine learning software that is now in Bloomberg's production environment.

**Honors** 

13th Nationally - Computer Security Awareness Week Capture-the-Flag College Division 17th Internationally - Codegate Capture-the-Flag Final Round, Seoul, South Korea

2nd Nationally - Codegate Capture-the-Flag Final Round

24th Internationally - Plaid Capture-the-Flag

10th Nationally - Computer Security Awareness Week Capture-the-Flag HS Division

14th Nationally - Pico Capture-the-Flag 2nd Regionally - Philadelphia Classic USA Computing Olympiad Gold Division

#### **Projects**

#### StreamingBC - HPC Lab

(Nov '15)

- Implemented deletion case for streaming between centrality algorithm in C.
- Improving load balancing for parallel streaming BC algorithm.

## SeeSay - PennApps XII

(Sept '15)

- Made server save snapshots and serve static content.
- Integrated and perfected text-to-speech feature into app.

#### Vearch - PennApps XI

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- Made server download and organize videos with Node.js
- Created responsive user interface with socket.io
- Project placed in top 30 among all 224 projects

#### Seeding.rocks - PennApps X

(Sept '14)

- Created new BitTorrent-like method of hosting websites.
- Enabled an Intel Edison to run as a web server.

#### WordyScript - hackBCA

(Mar '14)

- Wrote how English would be translated into Python.
- Helped design user interface.
- Top 20 among 81 projects and won NameCheap prize

#### Leadership

# Co-Founder and VP at High School CTF (Apr '14 - Jun '15)

- 2000+ person high school computer science competition.
- Wrote problems and got sponsors (Facebook, Bloomberg, Trail of Bits)

# Co-Founder, Co-President at HSCS.io (Jun '14 - Jun '15)

- Helped other students run CS competitions.
- Organized people into teams and assigned tasks.
- Wrote problems and got sponsors.

#### Co-Founder and VP of CS Club

(Sept '14 - Jun '15)

- Gave lectures on algorithms and computer security.
- Organized participation in competitions.

## Teaching Assistant at Program for (Jun '14 - Jun '15) Algorithmic and Combinatorial Thinking

- Mentored students in discrete math and theoretical CS.
- Studied randomized algorithms and machine learning.