Akib **Nizam**

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Education

Georgia Institute of Technology   *Atlanta, Georgia*
B.S. IN COMPUTER SCIENCE   *Aug 2016 - May 2020*
- GPA - 3.9/4.0
- Concentration - Computer Architecture and Information Inter-networks
- Relevant Coursework: OS Design, Advanced OS Design, Algorithm Design, Legal Aspects of Business, Management Statistics

Experience

Bank of America Merrill Lynch   *New York City, New York*
SOFTWARE ENGINEERING INTERN   *May 2019 - Aug 2019*
- Tested and implemented mathematical models for Merrill's trading platform in C++ for evaluating the intra-day credit, risk, profit/loss of Municipal Bonds – this feature is used by over 2000 traders to manage assets worth over $300,000,000
- Developed Python unit tests to check for proper installation of SOFR (Secured Overnight Financing Rate) for intraday risk and profit/loss calculations
- Built online database in JavaScript, NodeJS and SQL to store and view information on real estate development bonds issued by BAML

Qbitlogic   *Atlanta, Georgia*
SOFTWARE ENGINEERING INTERN   *May 2018 - Aug 2018*
- Built a stack-based buffer-overflow checker in Python for C++ programs with 3% false positive rate using binary analysis techniques
- Caught security vulnerabilities in open source projects using the buffer-overflow checker
- Collected data on performance of different static analyzers and designed improvements for the analyzers based on the data

Aware Home Research Initiative   *Atlanta, Georgia*
UNDERGRADUATE RESEARCHER FOR GEORGIA TECH LABS   *May 2017 - Aug 2017*
- Built a data management web application in NodeJS and NoSQL to collect data from smart home appliances in real time
- Built a smart watch application in JavaScript, HTML, CSS and Tizen for senior citizens to notify on safety hazards

Personal Projects

Almond — almond.epizy.com
STOCK OPTION CHAIN ANALYZER   *Aug 2019 - Present*
- Built a personal option chain viewer and analyzer of US stocks by creating RESTful APIs in JavaScript, PHP, CSS/HTML
- Implemented some contrarian sentiment indicators to find possible supports and resistances of price action of stocks
- More reliable and user-friendly than other public option chain viewers

Angr — github.com/angr/angr
BINARY ANALYSIS TOOL - WITH OVER 3000 ACTIVE USERS   *May 2017 - Aug 2017*
- Increased speed and efficiency of the search algorithm, written in Python, that is used in symbolic execution
- Fixed bug in Python code that gave rise to path explosion problem, which is a common and important problem with symbolic execution

Batman Vs. Joker — github.com/akibnizam/Batman-Vs-Joker-Game-GBA-
NINTENDO GAMEBOY ADVANCED GAME   *Nov 2017 - Dec 2017*
- Build a game in C where players play as Batman and have to catch Joker while dodging flying projectiles
- The game was named "Top 3" best game of Fall 2017 class of CS 2110 (Computer Organization and Programming)

Skills

Languages/Frameworks   C++, JavaScript/jQuery, HTML/CSS, PHP
Other Technologies   AngularJS, NodeJs, Ionic, Linux, Git, Bulma CSS, SQL

Extracurricular Activities

Bangladesh Student Association   Provide help with event organization to represent Bangladesh on campus
Caving/Outdoors Club   Avid caver and currently training to be an instructor for caving trips at Georgia Tech
Billiards   Have been training and playing local leagues to become professional pool player