

Akib Nizam

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Education

Georgia Institute of Technology

B.S. IN COMPUTER SCIENCE

Atlanta, Georgia

Aug 2016 - Dec 2020

- GPA - 3.5/4.0
- 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

SOFTWARE ENGINEERING INTERN

New York City, New York

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

SOFTWARE ENGINEERING INTERN

Atlanta, Georgia

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

UNDERGRADUATE RESEARCHER FOR GEORGIA TECH LABS

Atlanta, Georgia

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