

Akib Nizam

☎ (929) 272-7107 ✉ abng@gatech.edu 🌐 akibnizam 📄 akibnizam

Education

Georgia Institute of Technology

August 2016 - May 2020

- B.S. Computer Science
- Info-Networks + System Architecture
- GPA: 3.30

Skills

- **Languages:** C, C++, Java, Python, JavaScript, HTML, Assembly
- **Tools/Frameworks/Technologies:** Clang, AngularJS, Node.js, HTML/CSS, jQuery, Git, Github, Firebase, Amazon Web Services
- **Databases:** MySQL, MongoDB

Experience

Cybersecurity Engineering Internship | QbitLogic Summer 2018

- Built a **stack-based buffer-overflow checker** using **symbolic execution** and **binary analysis techniques**
Tools Used - Python, C++
- The checker found buffer overflow vulnerabilities in open source projects, including "Heart-bleed" vulnerability in previous versions of Openssl
- Benchmarked static analyzers against Clang error reports on open source projects

Software Engineering Internship | Aware Home Research Initiative - Georgia Tech Lab Summer 2017

- Built a data management web application that collects data from smart home appliances in real time to assist other machine learning applications
Tools Used - JavaScript, HTML, NodeJS, NoSQL
- Developed a smart watch application for senior citizens that notifies on safety hazards, such as the stove left unattended for a long time
Tools Used - JavaScript, CSS, HTML, MQTT, Tizen

Projects

ANGR | Contributor Summer 2018

- Angr is an **open-source** powerful and user-friendly binary analysis platform with over **3000 active users**
- Increased speed and efficiency of the search algorithm that is used in symbolic execution
- Fixed path explosion problem, which is a **common and important** problem with symbolic execution
Tools Used - Python
- Added to documentation new knowledge that was obtained from using and improving Angr

Riddle Solving Game | Initiator Spring 2018

- Built a riddle solving mobile app (iOS and Android) for a **French museum**, Museums of Metz. It was made to **increase number of yearly visitors** by making them more engaged with the knowledge of artifacts
Tools Used - AngularJS, TypeScript, Ionic

Batman Vs. Joker Game | Initiator Fall 2017

- Built a game for the Nintendo Gameboy where players play as Batman and have to catch Joker while dodging boomerangs
Tools Used - C
- The game was named "Top 3" best game of Fall 2017 class of CS 2110 (Computer Organization and Programming)

Dynamic Memory Allocator Library | Initiator Fall 2017

- Built a custom malloc library to do dynamic memory allocation. It had functions similar to malloc, calloc, realloc and free
Tools Used - C

Extracurricular Activities

- Radio Jockey for **Wrek Radio**, a student led campus radio station
- Billiards
- Caving