



Amber Aftab

850 Claytor Square, Blacksburg, Virginia 24060

amber19@vt.edu

+1 540 998 8447

EDUCATION

Virginia Polytechnic Institute and State University PhD (Computer Science)	August 2019 - present
Lahore University of Management Sciences (LUMS) BS (Computer Science) - (Placed on Dean's Honor List)	June 2015 - June 2019
Karachi Grammar School Cambridge Advanced Level	August 2013 - June 2015
Karachi Grammar School Cambridge Ordinary Level	August 2010 - June 2013

WORK EXPERIENCE

Teaching Assistant at VT - CS 1064 (Intro to Programming in Python)	Jan 2020 - May 2020
Teaching Assistant at VT - CS 1014 (Intro to Computational Thinking)	Aug 2019 - Dec 2019
Teaching Assistant at LUMS - CS-310 (Algorithms)	Aug 2018 - Dec 2018
Teaching Assistant at LUMS - CS-100 (Computational Problem Solving)	Aug 2017 - Dec 2017

RESEARCH

Currently working on creating a tool that allows users to create interactive tutorials for web tasks by demonstration.

Worked on code obfuscation using Intel SGX which combines LLVM code transforms to add aliases and reconfigure control flow of a program. Since certain parts of the transformed program run in Intel SGX, this prevents most or all static analysis of the program, even with privileged access to software and hardware.

COURSE PROJECTS

- Paxos in GoLang
- P2P file sharing network in python
- Simplified MapReduce master and workers search engine in python
- C++ code parser, lexer and interpreter in python
- Android budgeting app in Android Studio and Java

TECHNICAL SKILLS

- Technologies and environments:** Windows/Linux, Android Studio, MATLAB
- Languages:** C/C++, Python, Java, JavaScript (nodeJS), reactJS, Haskell, Golang, x86 assembly code, HTML, CSS

**advanced programming techniques (Object-oriented programming, functional programming, asynchronous programming and parallel programming)*

EXTRA CURRICULAR

- Team Member of Teach for Change department at LUMS Community Service Society
- Team Member of LUMS Music Society