# ANDER M. U. MORAN

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EDUCATION	
Texas A&M University, College Station TX	Expected May 2019
Bachelor of Science, Computer Science	
Minor, Cybersecurity	
The John Cooper School, The Woodlands TX	May 2015
• Overall SAT Score: 2190/2400	•
• SAT Subject Test: Mathematics 2 – 800/800	
<u>ACTIVITIES</u>	
Varsity Tennis Captain	Spring 2014, 2015
• Lead team practices	1
Organized team in tournaments	
TAMU cybersecurity club	Fall 2016
Learned about webpage security	
WORK EXPERIENCE	
Tutor, The Woodlands TX and College Station TX	Fall 2011 – Present
• Physics	
Computer Science	
British Literature	
SAT Writing and Math	
Intern at Providence Hospital Of North Houston Llc, Houston TX	Summer 2016
<ul> <li>Set up the network of computers and operating systems</li> </ul>	
<ul> <li>Assisted employees with computers and technical issues</li> </ul>	
Intern at i.e.Smart Systems, Houston TX	Summer 2016
<ul> <li>Configured audio/visual equipment and developed software for such systems</li> </ul>	
AWARDS/HONORS	
National Hispanic Scholar	Spring 2015
<ul> <li>Awarded by the College Board to academically exceptional high-school Hispanic/Latino stud</li> </ul>	
National Society of Collegiate Scholars, Member	Fall 2015 – Present
<ul> <li>Recognizes outstanding achievement among first and second year college students</li> </ul>	
Phi Eta Sigma, Member	Spring 2016 – Present
National honor society for first-year college students	1
Sigma Alpha Lambda, Member	Spring 2016 - Present
National Leadership and Honors Society	1
Sigma Alpha Pi, Member	Spring 2016 - Present
National Society of Leadership and Success	1
CERTIFICATES	
Codebashing by Checkmarx, iOS	Spring 2018
<ul> <li>Learned good security practices for iOS app development</li> </ul>	
Codebashing by Checkmarx, C/C++	Spring 2018
<ul> <li>Learned good security practices for C/C++ programming</li> </ul>	- ¥
Secure Code Warrior, iOS (Objective-C)	Spring 2018
<ul> <li>Interactive portal allowed me to work on real world security problems</li> </ul>	= *
SKILLS	
Programming Languages	

- C++, Objective-C, C, Shell, Python, Java, Basic HTML, x86 assembly
  Data structures and algorithm analysis
- Artificial intelligence

# Computer Knowledge

- Adobe Photoshop, Adobe Illustrator, Adobe After Effects, Adobe Muse
  Understanding of OS X, Windows, and Linux

## iOS Reverse Engineering

Spring 2016 – Present

- Understand the reverse engineering progress regarding iOS applications
  - o Reverse engineered dozens of iOS applications
  - o Reverse engineered iOS SpringBoard

#### PERSONAL PROJECTS

#### Mobile Phone Applications (iOS)

Summer 2014 - Present

- Simple Media: an application for legally blind users that facilitates reading on-screen
- Piqqer: an application which is programmed to randomly select an item from a list
- Calculator: an application with an interactive calculator
- Helped developer (@cokepokes) of an iOS jailbreak tweak with 300,000 users

## **Xbox Live Gamertag**

Fall 2015

- Written in Python
- Scraped webpages to see if any given gamertag was available
- Ran with a list of the 10,000 most common words to see if any were available to use

## Nightmare

Fall 2016 - Spring 2017

- An iOS "tweak" dynamically injected into Snapchat at runtime
- Created an in-depth dark mode for the app
- Had ~300 users before Snapchat buffed their security within their iOS app
  - O Learned to deal with consumers from all over the world
    - Users from South America, Europe, Asia, Middle East

## Brainf\*\*\*++ & Brainf\*\*\* Interpreter

Spring 2017

- Built a Brainf\*\*\*(++) interpreter for Unix based operating systems
  - o Debugger in process
- In the process of developing the Brainf\*\*\*++ language (based off the esoteric language Brainf\*\*\*)

## Class Checker for Texas A&M University

Spring 2017

- Made for macOS using Xcode and Objective-C
- Alerts the user when there is an opening in a class that is full
- Scrapes the Texas A&M course scheduler website for information regarding classes
  - O Reverse engineered the webpage to find data source

#### Objective-C Code Injection in MacOS Sierra

Summer 2017

- Learned how to create a dylib and inject it into a running process
- Swizzled methods with the help of Objective-C runtime

#### Detective-C, Library for Objective-C runtime inspection

Fall 2017

- Dumps information (properties, instance variables, methods) about any given class when only provided with a class header file or an executable referencing said class
- Useful when injecting a dynamic library into a process and need more information

#### Steganography

Fall 2017

- Written in Python
- Hiding data in plain site
  - o Hides sensitive strings within the data of an image through modifying the last two bits of selected bytes

#### **CURRENT INTERESTS**

## **Software Engineering**

- Mobile (iOS)
- Desktop (macOS)
- Web

### Cybersecurity

- Low level operating system security
- Fuzzing
- Binary exploitation
- OS memory protection
- Reverse engineering
- iOS security

#### Machine learning

• General