# Anthony Cruz

Las Vegas, NV

#### Profile

- Excellent communicator with a strong work ethic, dedicated to building and strengthening relationships with clients, colleagues and management
- Efficient and thorough with excellent communication and computer skills
- Proficient ability to use interpersonal skills in relating with others
- Creative and cooperative, working equally independently or as a team player

### EDUCATION

• University of Nevada, Las Ve	$\mathbf{gas}$
--------------------------------	----------------

B.S. in Computer Science; GPA: 3.80, Dean's Honor List (Fall 18, Spring 19) Jan. 2018 – (Expected) Dec. 2019

• Related coursework: Computer Science II (C++), Assembly, Symbolic/Advanced Logic, Computer Architecture, Data Structures, Discrete Mathematics II, Operating Systems, Linear Algebra, Software Design I, Computational Theory & Automata, Big Data, Information Assurance, DBMS, Algorithms.

### • College of Southern Nevada

- A.S. in Science; GPA: 3.93, High Honors
- Related coursework: Calculus I & II, Discrete Mathematics I, Digital Logic Design, Computer Science I (C++), Fundamentals of Life Science.

### **COURSE PROJECTS**

• Biokey Security (2nd Place in Computer Science Award)

Software Product Design and Development I

- As a group project for Senior Design Competition (Spring 2019) we designed an all-in-one biometrics-based security system
- We used facial recognition and voice pass-phrases to add an extra layer of security for a real world two factor authentication system
- Was given the task to implement the User Interface using Ionic Framework (HTML, CSS, Typescript) to make our application cross-platform for iOS, Android, and the Web
- Communicated with the backend developers and helped set up the API calls to connect the UI with our backend

# • Espresso Compiler Project

#### Compiler Construction

- Implemented a compiler for a language called Espresso (Espresso is a subset of real Java) for a semester long project consisting of 6 phases that followed the stages of a compiler (contributed 4.687 lines of code)
- Phases included using the tools JFlex and Java CUP to construct a scanner and a parser for the Espresso language, adding action to the parser to build a syntax tree for the parsed program, adding a symbol table to the project, performing type and modifier checking, and generating intermediate assembler code, which can be assembled to Java class files using Jasmin (and can run on the actual JVM)

# • Espresso Virtual Machine

Programming Languages, Concepts and Implementation

- Project that involved writing an interpreter for an assembler like language (very closely related to Java bytecode) broken down into various phases
- Phases included implementing and testing the operand stack, implementing and testing a number of operations involving the operand stack, and working with activation records and the execution loops

#### **PROGRAMMING SKILLS**

Las Vegas, NV

Jan. 2016 - Dec. 2017

Las Vegas, NV

<sup>•</sup> Languages: Java, C++, Python, Javascript, C **Technologies:** Ionic Framework (HTML, CSS, Typescript)