Byron Garcia

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I am a software engineer with eagerness to learn, an appreciation for teaching others, and a respect for those who teach me.

EDUCATION

University of California, Merced — Merced, CA
BS Computer Science & Engineering *GPA: 2.65* — Aug 2016 - May 2020

COURSE PROJECTS

Breakout — Object-Oriented Programming
C++ — Fall 2018

∗ Two partners and I built replica of breakout, originally on the Atari, using OpenGL

∗ Utilized practices such as inheritance, polymorphism, and object classes

∗ Replica had fully functioning collision detection and textures layered using graphics library SOIL

Tic Tac Toe — Object-Oriented Programming
C++ — Fall 2018

∗ Created in OpenGL using object-oriented practices

∗ Two modes, Player vs Player and Player vs CPU

∗ Player vs CPU had CPU choose the first available square, beginning at the leftmost and topmost square

TinyOS - Chat Client & Server — Computer Networks
nesC — Fall 2018

∗ Implemented messaging capabilities on a simplified version of TCP, Transmission Control Protocol

∗ Allowed ability to transmit messages between nodes, breaking up the message into packets

∗ Built on the previous protocol implementations: distance vector routing, TCP, neighbor discovery, and flooding

TinyOS - Distance Vector Routing — Computer Networks
nesC — Fall 2018

∗ Implemented a routing protocol, distance vector routing, to determine the best route from node to node based on distance

∗ The routing protocol was assembled upon on previously implemented protocols, neighbor discovery and flooding

Binary Search — Computer Organization
MIPS — Spring 2018

∗ Constructed a popular search algorithm in a low level assembly language

∗ The program sorted a list provided by the user to then perform binary search to find the key

∗ Utilized MARS MIPS simulator to run and create the program

RELEVANT COURSES

Data Structures, Computer Organization, Object-Oriented Programming, Computer Networks

PROGRAMMING LANGUAGES

C++	Proficient	**C**	Proficient	**Java**	Intermediate
MIPS	Intermediate	**nesC**	Intermediate	**Python**	Basic
Tex	Basic				

SKILLS

∗ Collaboration	∗ Customer Service	∗ Linux	∗ Git
∗ Windows	∗ Bash Terminal	∗ MacOS	∗ OpenGL