# Vincent Escueta

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## **EDUCATION**

University of California, Berkeley

Berkelev, CA

College of Engineering

2014 – 2018 (Expected)

Electrical Engineering and Computer Science B.S.

Diamond Ranch High School

Pomona, CA 2010 - 2014

**ACHIEVEMENTS** 

Salutatorian

2014

**Disney Scholar Program Scholar** 

2014 – Present

## TECHNICAL SKILLS

- Programming Languages: C++, C, Java, Python, Scheme, MIPS, SQL, GLSL
- Common Linux Utilities: Git, ssh, vim, etc.
- Animation Software: Autodesk Maya, Blender
- Graphic Design Software: Adobe Photoshop

### **PROJECTS**

**Scheme Interpreter** 

Fall 2014

Developed a Scheme Interpreter using Python to demonstrate our understanding of both Object-Oriented Programming and Functional Programming while utilizing the basics of programming such as recursion, lists, lambda functions, and inheritance.

Gitlet *Spring 2015* 

Created a simple, but efficient version of Git using Java, without any given skeleton code, to understand the use of Data Structures by using Hash Maps, Hash Sets, and Linked Lists.

#### MIPS Assembler and Linker

Fall 2015

Wrote a MIPS Assembler in C that takes in MIPS instructions and turns those instructions into machine code. Afterword, the MIPS Linker takes object code files and outputs executable files.

The Generous Ghost *Spring* 2016

In a group of five, a minute long 3D Animated Short was created using Maya by developing all the character models, creating the environments, and applying lighting and shading. In this specific short, Maya's cloth simulation was taken advantage of.

PathTracer/Lens Simulator

Spring 2016

Created a renderer that uses global (direct and indirect) illumination and simulates a realistic camera lens and autofocus using C++. The images are rendered efficiently due to bounding volume hierarchy algorithms and the program has implementations for mirror and glass objects.

GeoMenagerie

Created a program using C++ that loads COLLADA mesh files that could be edited by implementing functions that tessellate Bezier surfaces into triangles to create objects from a given mesh, manipulate half-edge meshes using splitting and flipping, implement Loop subdivision, and apply shaders to the objects.

### WORK EXPERIENCE

### CS61A: Structure and Interpretation of Computer Programs

Berkeley, CA

**Spring 2015** 

Helped and guided students through the weekly labs, homework assignments, and projects.

## **B & E Bowling Supply**

Diamond Bar, CA

Store Clerk

2010 - 2014

- Assisted customers with bowling inquires for equipment, accessories, etc.
- Assisted in back office work such as filing, inventory, bowling ball maintenance, etc.

# LEADERSHIP/SERVICE

**Vice President** Best Buddies 2012 - 2014**Member** Solar Boat 2012 - 2014

**President** National Honor Society 2013 - 2014

Player Berkeley Starcraft II Team 2014 - Present 2016 - Present

Core Leader Student Ministry Team Newman Hall