# **Eduardo Chavez**

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#### **EDUCATION**

## **Bachelor of Science, Computer Science**

September 2016 – June 2019

University of California, Santa Cruz

\*Overall GPA: 3.16

Associate of Science, Mathematics, Physics and Pre-Engineering

February 2011 – June 2016

El Camino College, Torrance, California

Dean's List: Fall 2013, Fall 2014, Spring 2015, Fall 2015

### **COMPUTER SKILLS**

Operating Systems: UNIX, Microsoft, macOS

Languages: C, C++, Python, Java, PostgreSQL, MIPS

Tools/IDE: Git, Github, Visual Studio 2015, VS Code, NetBeans

### EXPERIENCE

## MESA (Mathematics, Engineering, Science Achievement) Program Specialist

October 2018 - Present

El Camino College, Torrance, California

- Improve and automate database updates to ensure integrity of data for future state reports
- Perform fact-gathering assignments to inform students of scholarship, research, and work opportunities

# **MESA Computer Science Tutor**

October 2018 – March 2019

El Camino College, Torrance, California

- Reinforced students' understanding of computer science fundamentals, data structures, and object-oriented design
- Assisted students with finding efficient ways to solve programming assignments and generate code

# Research Intern, TSSRP (Transfer Student Summer Research Program)

June 2015 – August 2015

University of California, Los Angeles

- Developed applications in C++ to analyze the impact of several image formats on flash storage efficiency
- Created presentations on a biweekly basis to share research progress with mentor and PI

# **CNC (Computer Numerical Control) Machine Programmer/Operator**

August 2011 – February 2013

Space Lok, Inc., Gardena, California

- Programmed Haas/Okuma CNC lathe machines to manufacture metal fasteners, nuts, and washers
- Adjusted and operated machines in accordance with given blueprints to maintain high product quality

## TECHNICAL PROJECTS

#### **Guitar Multi-Effects**

- Teamed with four peers to develop a modularized application in Pure Data to modify guitar audio input
- Implemented a headless Raspberry Pi to run guitar multi-effects application to provide the user with a low cost alternative of purchasing multiple guitar pedals

# **Database Management System Design**

- Teamed with two peers to implement a paged file database management system in C++ to efficiently store and scan data records using B+ Tree Indexes while following an object-oriented design
- Designed searching algorithms to have efficient time complexities while considering cost of IO operations

## **AWARDS**

### National Science Foundation (NSF) Scholarship Recipient: Fall 2014, Fall 2015

• 2x recipient for NSF Scholarship based on strong academic standing and level of participation in MESA (Mathematics, Engineering, Science Achievement) and SSS-STEM (Student Support Services) programs

#### Southern California Edison STEM Scholarship Recipient: Spring 2015, Spring 2016

• 2x recipient for Southern California Edison STEM Scholarship based on strong academic standing

# RELEVANT COURSEWORK

Analysis of Algorithms Comparative Programming Language Advanced Programming in C++

Compiler Design I Database Systems I & II Operating Systems
Computational Models Algorithms & Abstract Data Types Computer Architecture

#### ADDITIONAL SKILLS

Languages: Fluent bilingual in Spanish