Nicolas A. Parra

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Education

California Polytechnic State University, San Luis Obispo Sept. 2016 - June 2019

Bachelor of Science in **Computer Science**, June 2019 GPA: 3.4

Related Coursework: Software Engineering, Compilers, Cryptography Engineering, Algorithm Design/Analysis, Operating Systems, Parallel GPU Programming, Distributed Computing, Databases, Networking, Theory of Computation, Computer Architecture, Data Structures, Computing and Privacy Ethics

Work Experience

Electronic Assembly Technician

Denecke Inc. Valencia, CA Jun. 2013 – Sept. 2018 (Summers)

- Soldering and assembling motherboards, processors, and timecode equipment
- Troubleshooting, configuring, and repairing timecode slates.
- Maintaining stock and packaging final products.
- Cooperating with employees and managers to exceed quotas.

Bus Person / Cashier

19 Metro San Luis Obispo, CA Sept. 2016 – June 2017

- Stocking service stations
- Maintaining cleanliness and sanitation of dining area
- Enhancing skills in customer service and communication with team members

Skills and Attributes

Programming Languages: Java, Python, C, Swift, Racket, SQL, Assembly, Some HTML, JavaScript, CSS

Electrical Experience: Soldering, LC3 and MIPS Architecture, LRC Circuits, Logic Gates, Combinational Logic

Other Experience: Database Management, Microsoft Office, Graph Creation/Editing, Shipping Preparation

Gallup Strengths Quest Results: Achiever, Analytical, Focus, Relator, Harmony

Other Speaking Languages: Conversational Spanish

Project Highlights

- *My Baseball Collection App* - Currently publishing an iOS app to digitize baseball card collections
- *ZHRL Programming Language* - Designed and implemented a lisp-like interpreted programming language
- *Dataset Processing* - Used MongoDB, MapReduce, and Spark to analyze an Iowa dataset
- *Airline Software System* - Worked in a team of five to develop airline ticketing and scheduling software
- *Parallelization* - Worked to massively speed up execution times of various C programs using CUDA
- *File System* - Designed and implemented a dynamic-block file system in C
- *Thread Library* - Wrote a thread library for multithreaded programming in C
- *Chat and File Transfer Program* - Created a TCP chat and UDP file transfer program
- *Unix Shell* – Recreated a reduced-functionality Unix shell interpreter in C
- *Tape Archiver* – Recreated the Unix tape archiver to compress/decompress files and directories in C
- *MIPS Simulation* - Simulated MIPS processor registers, stack, and step by step execution in C
- *Miner Simulation* – Simulated 2D world with pathing entities, animated entities, and world updates in Java
- *Huffman Encoder* – Created a file compressing/decompressing program using Huffman binary format in C
- *Computer Assembly* – Built a Windows computer from basic parts
- *Others* – Image Editor, Live Earthquake Updater, Media Player, AES Block Encryption, Caesar Cipher, Vigenere, Phishing Website, Hashed Password Cracker, Mersenne Twister Cracker

Honors

- CalPoly Dean's List 2017-2019
- California Scholarship Federation Sealbearer
- National Honors Society Lifetime Membership
- *AP Scholar with Distinction*
- *Summa Cum Laude* Bishop Alemany High School Diploma (GPA of 4.0 or higher)
- Bishop Alemany High School Top 10 Scholar Award