

Education

Bachelor of Science in Computer Engineering
University of New Mexico

May 2020
GPA 3.43

In a nutshell

- Strong knowledge of C and C++ programming in a Linux environment.
- Experience with systems level development, socket programming, and low-level I/O
- Understanding of OS concepts and network protocols such as TCP/IP and UDP
- Strong experience with scripting languages such as Bash and Python2 and Python3
- Advanced knowledge in Computer Logic Design, Probabilistic Methods, Algorithms and Signals and Systems.
- Experience in building and designing test cases. Strong analytical & problem solving, documentation, and communication skills
- Course experience with Circuit Analysis, Microprocessors and Electronics
- Very strong experience CAD modeling with Fusion 360 and AutoCAD
- Optical and Photography experience (color science, image quality assessment) as well as extensive experience with imaging analysis software packages (Photoshop)

Professional Experience

Software Engineer at Seaskate Startup _____ June 2020 - Currently

Currently working at a startup 3D modeling a wheelbase structure for a new kind of surfboard-shaped skateboards by applying my physics and math knowledge and 3D modeling and printing skills. Tasks involve designing planetary gear mechanisms, wheels with specific infill and 3D printing with resin and filament.

- Software: Fusion 360.
- Hardware: Formlabs 1+ Resin 3D printer and Prusa Filament 3D printer.

Software Engineer intern at Aspen Avionics LLC _____ May 2019 - May 2020

- Assisted with software identification, Code Coverage, and Requirements checks
- Developed code verification by analysis procedures for a DO-178 B Level C project, using languages such as Python, C, Shell and BASH and interacting with hardware for tests.
- System requirement tracing and testing
- Debian package removal and OS cleaning for minimal storage and functionality for Avionics systems.
- Unit Testing flight displays

Python instructor _____ July 2018 - April 2019

- Python instructor through the University of New Mexico at Washington and Polk School in Spanish and English to bilingual students.

Technology Lab Assistant _____ 2014-2015

Assisted troubleshooting and resolving common hardware (desktop, laptop, printer, etc.) & software problems (Microsoft Office, Win7 / Win10, VPN, etc.) (CEM, Equatorial Guinea)

Office Automation Teacher Assistant _____ 2016

Helped people of all ages in class teaching an intensive 10-week course of how to use Word, Access, Excel, PowerPoint, and OneNote. (ICEF, Equatorial Guinea)

Freelance Photographer and instructor _____ 2015 - current

Studio shoots, Weddings, Graduation pictures. Brand collaboration with Vogue USA, Own The Day, Valley View Villas Apartments and University of New Mexico. Professional proficiency in Adobe Photoshop & Lightroom.

Accounting assistant _____ 2016

Created graphs, tables, and diagrams from given information by the company (Diseños Libra, Spain)

Extracurricular Experience

- QUANSER drone project: Senior Design project in which we program drones to follow flight paths to make art (Self-controlled by an algorithm we are making beforehand). Drones were programmed to lift objects and use them to draw or project onto surfaces to, later on, showcase the work. I made an image processing program for Quanser to take the Standard deviation of a compound of images to create a shade trace.
- Programmed a scheduling algorithm for Crownpoint Healthcare Facilities to easily schedule people's work schedules in different clinics and hospitals with 30+ working alternatives such as managing whether people work in different clinics, primary/urgent care, weekends/location preferences, etc.
- 3D designed the battery structure of the 2020 Electric FSAE UNM racecar with AutoCAD using precision tools for measuring. Batteries were designed for optimal material use.
- Programmed a 2 wheel robot with Arduino based on a RaspberryPi to follow a pattern. Self-controlled with four optical sensors to detect the line to follow
- Fully designed and 3D printed a car working with AutoCAD and Prusa 3D printing software, then added complete functionality to be remote-controlled with an electric rear-wheel-drive battery using a 2.4GHz connection to control it.
- Programmed a Calculator simulator with LabView implementing each of the operations such as addition and exponential and being able to handle properly cases like 0/0. The result was a fully functional calculator with its GUI exported into a .exe file usable on any 32-bit windows machine and up
- Taught Python language to Bilingual students and made a 25-frame story pixel by pixel as their final project.
- VERY BIG INTEREST in videogames, Augmented/Virtual Reality and 3D design of emerging technologies. My dream job would be working for a startup and help developing a product.