Nolan Chang

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LinkedIn: linkedin.com/in/nolan-chang
Github: github.com/nychang1/Resume-and-Projects

Skills

- **Programming Languages and Formats**: C++, ADA, Linux/Unix, Verilog, Python, JSON, XML, C#, SQL
- **Technologies/Tools**: Jira, Github/Gitkraken, VMWare, Bitbucket, Visual Studio, FPGA, PSPICE, Vivado, Matlab, Photoshop, Solidworks

Experience

Lockheed Martin Aeronautics — Fort Worth, TX
Software Engineer — *January 2020 - Present*

- **F16 Platform Development**: Developed, maintained and updated software for the F16 using ADA and C++. Often collaborated and engaged with other teams throughout the development life cycle (can explain specifics in person/through calls)
- **Simulation Testing**: Tested developed features and code in an F16 simulation environment to verify correct functionality
- **Algorithms**: Created and adjusted algorithms for testing purposes
- **Agile Development and Teamwork**: Worked closely with teammates in an agile environment to develop working, deliverable code on a bi-weekly basis, with daily team meetings and bi-weekly demos

CyberPowerPC — City of Industry, CA
Technical Associate — *Mar 2016 - Jun 2018*

- **Hardware Integration and Optimization**: Integrated, tested, and optimized computer hardware within different configurations
- **Electronics and Computer Conventions**: Participated in electronics conventions demonstrating virtual reality systems with the HTC Vive and Oculus Rift as well as high-end computer systems
- **Technical Writing**: Contributed technical writing pieces for CyberPowerPC computer and electronic products on major retailers such as Amazon, Walmart, and Best Buy

Education

California State Polytechnic University, Pomona — Pomona, CA
Bachelor of Computer Engineering — *Sep 2014 - May 2019*

Relevant Coursework: Object-oriented programming and design, algorithms, operating systems, data structures, CPU design and scheduling, circuit analysis, logical and sequential circuit designs, microcontrollers, FPGAs, control systems, power, signal processing, lighting and illumination engineering

Projects

Swan Games - Online contract bridge platform — Remote
Independent Software Developer — *June 2021 - Present*

- **Backend Development**: Developed and refined C++ backend code including object-orientated class and system design to help launch Swan Games, an online bridge platform
- **Algorithm Design**: Developed algorithms to manage and calculate the scoring system for the end of each match and assign match awards
- **JSON/XML**: Created JSON templates and formats for several file I/O purposes and data capture
- **Coordination**: Coordinated and worked with different teams across the continental USA to streamline code, presentations, and demos

ZYNQ S-Curve Motion Controller with Configurable Kinematics — Pomona, CA
Embedded Software Developer — *Aug 2018 - May 2019*

- **Motion Controller Development**: Created an open-source, multi-feature motion controller with user-definable kinematics seeking to improve the flaws of industrial and open-source motion controllers
- **SCurve Modeling and PWM generator**: Highly optimized S-Curve motion profiler, trajectory planner and PWM pulse generator using a combination of Verilog, Python, and C
- **Homming and safety logic**: Implemented homing logic and a safety supervisor to reset the controller and provide safety criteria

Certifications & Skills

- Certified SAFe Scrum Master/SAFe for Teams (ID: 78804471-5588)
- Certified Engineer-in-Training for Electrical and Computer Engineering (ID: 168007)
- Certified Solidworks Associate (ID: C-JGF9Y4MEA5)
- Spoken Languages: English, Mandarin Chinese