Christian Wesly **Moser**

Electrical and Computer Engineering | Computer Science | Software Developer | Hardware Developer

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Electrical and computer engineer with expansive knowledge of plethora of software- and hardware-related systems. Experienced with embedded design at low-level programming and computer architecture as well as repair and fabrication of surface-mounting semiconductor components. Especially advanced knowledge of mid-level and high-level programming software design. Familiar with design process of FPGA-based systems and programmatic processes. Interested in management to help educate, lead, contribute, and learn in a fast-paced industry centered around both hardware and software systems.

Skills

Programming	C, C++, Java, Python, C#, Kotlin, SystemVerilog, MATLAB, SQLite, Javascript, CSS, Ruby
Frameworks	Spring, Spring Boot, Swing, Angular.JS, PyTorch, TensorFlow, Apache Tomcat (Middleware)
Toolchains	Microsoft Azure, Docker, React, Next.JS, Gradle, Maven, Git, NVIDIA CUDA
Development Tools	Visual Studio, Visual Studio Code, Eclipse IDE, NetBeans, Android Studio, OrCAD Design Suite, Xilinx Vivado, Intel Quartus Prime, ModelSim
Operating Systems	**Windows** (XP, Vista, 7, 10, 11), **Linux** (Ubuntu LTS Server, Ubuntu LTS Desktop, Arch Linux, Debian), **macOS**
Other	**CAD/Modeling** (AutoDesk Inventor, Blender Rendering), Side-Channel Attacks on ChipWhisperer FPGA Platform, LaTeX

Professional Experience

Present – August 2022 — Software Developer Level 2, Jeppesen, a Boeing Company, Englewood, CO/Remote

- Assist in maintaining and developing new back end components of Java applications in SpringBoot framework
- Assist in maintaining and developing new front end components of JavaScript in frameworks such as Angular
- Good SQLite database management for client information and geographic information system (GIS) mapping
- Exceptional oral and written communication skills

Eclipse | Maven | Spring Boot | Angular | SQLite | QGIS | NPM | Node.js | Git

August 2022 – May 2022 — Information Technology and Data Analytics Intern, Jeppesen, a Boeing Company, Englewood, CO/Remote

- Work closely to shadow developers in both front-end and back-end environments
- Aided in development of new back end components of Java applications in SpringBoot framework
- Good SQLite database management for client information and geographic information system (GIS) mapping

Eclipse | Maven | Spring Boot | Git | SQLite | QGIS | NPM | Node.js

Present – Jan 2022 — Undergraduate Researcher, Oklahoma State University, Stillwater, Oklahoma

- Coordinate infrastructure used for testing susceptibility to side-channel attacks
- Implement and design Advanced Encryption Security algorithms to be utilized by Field-Programmable Gate Array (FPGA) boards under attack
- Work within interdisciplinary group to implement side-channel attack countermeasures into supervised neural networks

Xilinx Vivado | Python | Linux | Docker | ModelSim | NVIDIA CUDA

Present – Jan 2022 — Assistant Technician, Kicker Stillwater Designs, Stillwater, Oklahoma

- Test, diagnose, and repair Class AB and D amplifiers, speakers, and various audio electronics, yielding daily between 7 to 14 completely repaired electronic systems
- Operate Audio Precision testing equipment to measure Signal-to-Noise (SNR), frequency filtering through Bode plots, and maximum power output of power electronic systems
- Work closely with schematics to diagnose specific device failures
- Regularly replace both surface-mounted and through-hole soldered devices during repairs
- Overhauled and restructured entirety of department VBA-based Excel sheets to increase productivity and throughput

VBA

Jan 2022 – Feb 2021

Supplemental Instruction Leader, Oklahoma State University, Stillwater, Oklahoma

- Engaged students by implementing strategies for group learning to address visual, auditory, and kinesthetic learning styles
- Developed important leadership skills by helping teach material up to five hours a week
- Worked closely with professors and faculty to maximize student engagement

May 2021 – Feb 2020

DSDR Student Programmer, Oklahoma State University, Stillwater, Oklahoma

- Worked with version control systems such as GitHub to test and prototype software
- Used multiple programming languages like Python, JavaScript, and Ruby for software design to customize data automation tools to be used by varying departments within the company
- Wrote documentation and software manuals for general user audiences to use specific software solutions

Python | JavaScript | Ruby | Git

Education

May 2023 – GPA : 3.56

Bachelor's of Electrical and Computer Engineering, Oklahoma State University, Stillwater, OK

- Minor in Computer Science and Mathematics
- President's Honor Role

Activities and Involvements

Present – Fall 2021

Institute of Electrical and Electronics Engineers, Officer, Oklahoma State University

- Coordinate professional development events to raise awareness for electrical engineering opportunities available to peers in my academia
- Spearhead both hardware- and software-based projects to foster a productive environment and improve quality of life

Present – Fall 2021

Association of Computing Machinery, Member, Oklahoma State University

- Integrate engineering principles and concepts into organization to offer broader perspective of the computer science field
- Execute outreach events to generate awareness of organization

Fall 2022 – Fall 2021

Theta Tau Professional Engineering Society, Member, Oklahoma State University

- Coordinate Brotherhood events to generate a healthy-community environment among other members of the society
- Help organize outreach events and foster professional development among peers

Spring 2020 – Fall 2019

Engineers Without Borders, Member, Oklahoma State University

- Participated in community-building activities and volunteering opportunities

Projects

Lake McMurtry Android Application — Cowboy Hackathon 2022

Developer

- Rapidly developed Android application in less than 48 hours using Android Studio and Kotlin for the State Park of Lake McMurtry
- Worked efficiently in a close team of 4 members to learn, develop, and release an application in a never-before used toolchain
- Closely communicated with park officials to develop an application to meet the needs of the client

Android Studio | Kotlin | Git | Java | XML

TCP Marketplace Server — CS4243 : Design and Implementation of Operating Systems I, Fall 2021

Project Lead

- Spearheaded project to design marketplace database server that could communicate to multiple servers with varying amount of clients to simultaneously process seller, customer, product, billing, and order information
- Designed project entirely in C programming language to highlight the issues of race conditions in multithreading and multiprocessing
- Implemented hashmap-based data structure in database to keep a living tree of information that could simultaneously write-out to files while accessing information in O(1) time

C | Git

Oscilloscope Design Project — Computer Based Systems, Spring 2021

Designer

- Developed Raspberry Pi-based oscilloscope device which utilized ADS1115 24-bit Analog-to-Digital Converter (ADC) board
- Programmed an I2C communication protocol-based environment to interface ADC hardware to software implementation
- Designed software in Python for graphical interface to hardware

Python | Linux

Airfoil Design Project — Project Lead the Way : Aerospace Engineering, Fall 2018

Designer

- Researched and simulated airfoil design for optimal lift with minimal angle of
- Modeled design in AutoDesk Inventor to later be printed in ABS Plastic material
- Tested design in wind tunnel at varying angles for critical attack benchmarking

CAD