Ken Baierl

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Summary

Earned a Bachelor's degree of Science in Electrical Engineering with specialized experience in computer hardware design. Seeking an entry-level full-time position related to hardware design where I can leverage my knowledge in designing transistor chips in Cadence, test engineering or designing electronics in CAD software.

Skills

PCB Design, MATLAB and Simulink, Soldering Iron, Eagle Schematics, Cadence Virtuoso, Wolfram Mathematica, HTML, CSS, Logisim, Arduino, Oscilloscope, Fusion 360, Prusa MK3S+

Working to earn Associate Certification in MATLAB and Simulink. Taking courses to learn Altium Designer. Studying to earn a ham radio license.

Currently soldering together, a QRP Labs QCX-mini CW transceiver which is a single-band 5W CW transceiver that works as a radio transmitter and receiver for ham radio communication.

Education

Chapman University, Orange, CA

Bachelor of Science, Major in Electrical Engineering

Experience - https://kenbaierl.github.io/kenbaierlportfolio/

Chapman University Lab Assignments   Orange, California

Chapman University

- Designed a schematic for a robot using NMOS transistors and infrared sensors to follow a black line without microcontrollers.
  - Entered Chapman Engineering design competition.
- Created a control systems project for a wind turbine using a PID controller to find the error values to account for disturbances and measurement errors in MATLAB.
- Designed in Cadence a fully static true single phase clocked dual edge triggered flip flop that passed both DRC and LVS checks.
- Created multiple RTL design projects with Verilog code to work on an Arduino.
- Created multiple circuits to find waveforms on a Digital Oscilloscope.
- Created a single cycle processor and arithmetic logic unit using Logisim.
- Created a circuit to filter the high, mid, and low frequency bands to different colors when given an input sound.
- Improved Artificial Intelligence hardware with fellow classmates by improving the design of high-power computer systems.
  - https://blogs.chapman.edu/gci/2021/04/26/artificial-intelligence-and-improved-hardware-architecture/

Activities Experience

Chapman University Football Team

- Starting place-kicker as an incoming freshman.
- First Team All-SCIAC awarded for 2021-2022 and 2022-2023 season.
- First Team All-Region awarded for 2022-2023 season.
- Special teams player of the year awarded for 2021-2022 season as well as multiple records broken.
- Balanced time between life as a full-time engineering student and athlete while averaging around 24 hours per week for practice, conditioning, training, and games.
- Volunteered in Be The Match to help connect patients who need bone marrow or blood stem cells.

References available at request