

Junjie Wang

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Objective

Seeking summer intern or co-op opportunities that will enable me to apply and develop my general engineering skills. Mainly concentrate on analog IC design or electronic circuit design

Education

M.S., Electrical Engineering, since Fall 2017

B.S., Electrical Engineering, May 2017

Virginia Polytechnic Institute and State University, Blacksburg, VA

Overall GPA: **3.678/4.00**; In Major GPA:**3.638/4.00**

Related course: Power Electronics, Basic Semiconductor Device, Analog IC design, etc.

Course Project

Operational Amplifier Design

Virginia Tech, Blacksburg, VA Fall 2017

- Designed and Simulated a two-stage, single output operational amplifier with given specifications
- Designed at both circuit and layout level in Cadence Tools using TSMC CMOS 65nm technology

Full-bridge Buck Converter Power Stage Design

Virginia Tech, Blacksburg, VA Fall 2016

- Designed a power stage and feedback controller of a full-bridge buck converter
- Designed a closed-loop system involving a compensator design to stabilize the converter performance
- Simulated in MATLAB Simlink tool (PLECS) to evaluate the overall performance

DC-DC Photovoltaic Boost Converter Design

Virginia Tech, Blacksburg, VA Fall 2016

- Designed a boost converter model with a low dc load and a battery
- Calculated the operation points and estimated the loss to select components
- Simulate the model in LTSpice and validated the desired waveforms

Five-band Graphic Audio Equalizer Design

Virginia Tech, Blacksburg, VA Fall 2015

- Designed a 5-band constant Q graphic equalizer using 5 band pass filters
- Simulated the circuit in LTSpice and built the circuit to run the note "Middle C" through a microphone

Magnetic Ball Suspension

Virginia Tech, Blacksburg, VA Fall 2015

- Designed a feedback loop system using regulator, PWM controller, inverter, motor driver and sensor
- Simulated the circuit in LTSpice and MATLAB, validate the loop gain, step response and Nyquist

Other Experience

Virginia Tech Science Festival volunteer, Blacksburg, October 2015

Mountain View School volunteer, Roanoke, November 2015

Technical Skills

- Microsoft Office
- LTSpice
- Cadence
- MATLAB
- PLECS
- EAGLE

Others

- Multilingual, English and Mandarin Chinese
- Interests include basketball, travelling, music and photography