Andy Yang

Contact Information

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Education

University of Florida, Gainesville, FL

B.S., Electrical Engineering, 3.91 GPA **May 2021**

Professional Experience

Texas Instruments, Dallas, TX

Power Design Services Intern **June 2020 – Aug 2020**

- Used Ansys Maxwell to simulate and optimize the design of a planar transformer.
- Designed a high voltage (up to 230Vac input) non-isolated buck converter. 24Vout, 1Amax.
- Designed a UPS system focused on low cost with battery charging.

Power Design Services Intern **May 2019 – Aug 2019**

- Designed an embedded transformer in a 10 layer PCB for use in a Half Bridge Rectifier with Current Doubler Output. Specs: V_{in}= 24V–32V, V_{out}= $0.5V$–$1V$, $I_{out} = 40A$. PMP22089.
- Designed an inverting buck boost converter – schematics to PCB.
- Designed schematic for a low power DCM Flyback Converter.
- Worked on over 13 Design Requests (block diagrams, test reports, parts selection etc).

GE Appliances, Louisville, KY

User Interface / Electronics Intern **Jan 2019 – May 2019**

- Supported team by debugging hardware and software issues. Accelerated product release dates. Implemented light sensing equipment to quantify display quality issues.

Next Era Energy, Juno Beach, FL

Distributive Generation Intern **Mar 2017 – Aug 2017**

- Designed preliminary solar array layouts for ground-mount, roof top, and carport systems.

Involvement & Projects

University of Florida, Gainesville, FL

Teaching Assistant **Aug 2019 – Present**

- *Design 1*: Guided students as they learn how to debug and how to build simple AC/DC rectification circuits, amplifiers, and rudimentary active/passive filtering circuits. Students also learned PCB Design, embedded programming, communications protocols, etc.
- *Power Electronics*: Taught students to use electronics loads, power supplies, current sensor, and oscilloscopes to measure and test switching converters. Reinforced theory learned in class.

PEEPRL Lab, Dr. Shuo Wang's Research Group
Research Assistant **Aug 2020 - May 2021**

- Assisting in research of FET gate drive circuitry with digital control to reduce EMI in inverters.
- Researching literature on DPP and investigating potential for use in Solar Car.

Solar Gators, Solar Car Design Team
MPPT Lead / Electrical Lead **Aug 2017 – Dec 2018**

- Designed a Maximum Power Point Tracker with a boost converter.
- Managed electrical design team of 20 persons. Integrated electrical subsystems.
- Managed project timeline, and gave direction for electrical systems designs.

Ebike Project, Freshman Project **Aug 2016 – Jan 2017**

- Learned to engineer on a systems level by integrating different off the shelf components
- Created 13s11p Battery Pack from 143 used 18650 Li-Ion cells with a spot welder.

Relevant Skills

Skills: Altium Designer, MATLAB, LTspice, SIMPLIS, C, C++, Python, Ansys Maxwell, Embedded Processing, Power Supply Layout