KIVANÇ YILDIZ

kivancyildiz.me ◇ (702)-430-0702 ◇ KYILD086@uOttawa.ca

EXPERIENCE

Tesla, Inc. August 2019 - December 2019
Mechanical Design Intern — Drive Systems *Palo Alto, California*

- Performed **tolerance stack-ups** with thermal expansion for the next generation Plaid powertrain rotor
- Modeled the Plaid rotor balance rings on **CATIA V5** including drawings with appropriate **GD&T**
- Implemented a **radial growth measurement** system onto an existing spin tester using laser micrometers
- Conceptualized future stator design connections using **crimping processes for a sheet metal design**
- Developed a **custom test shaft** for the semi-truck platform and validated the design using **ANSYS**

Tesla, Inc. May 2018 - August 2018
Test Engineering Intern — Low Voltage Controllers Design & Test *Bay Area, California*

- Increased serviceability and lifetime of the Drive Unit Controller tester by creating custom **PCBs** using **Altium**
- Identified connectors on the Model 3 **wiring schematic** to design custom enclosures for low voltage testers with **power supplies, relays, CAN and LIN dongles, and displays**

Tesla, Inc. January 2018 - April 2018
Test Engineering Intern — Power Electronics *Bay Area, California*

- Designed a semi-automated **tester for production volume** junction box with a custom fixture, high-voltage probes and pneumatic actuators to measure resistance
- Worked with suppliers and optimized design to **reduce costs by up to 26%**

FORMULA SAE

Formula uOttawa September 2015 - Present
Captain & Lead Chassis Designer *Ottawa, Ontario*

- Set and enforced deadlines and goals for design, and manufacturing
- Managed annual team budget of $70,000
- Developed analytical models using **MATLAB** to help achieve lighter weight, and increased performance
- Modeled the chassis in **Solidworks** and performed FEA using **ANSYS** to validate the design

ACADEMIC RESEARCH

University of Ottawa / National Research Council September 2018 - Present
Transpiration Cooling Efficiency of Porous Materials *Ottawa, Ontario*

- **Published** a paper on Transpiration Cooling Efficiency of Porous Materials and **presented** at ISABE 2019 conference in Australia
- Developed **testing procedures** for systematic paint application and data collection using a low-speed wind tunnel, **CCD camera**, and a UV light source
- Implemented a variation of polynomial regression model in **Python** using **Scikit-Learn** to identify partial pressure of oxygen at any given location on the sample using **pressure sensitive paint (PSP)**

EDUCATION

University of Ottawa
Bachelor of Applied Science, Mechanical Engineering (CO-OP) April 2019
President of *Mechanical Engineering Student Society*

Scholarships: University of Ottawa Merit Scholarship (2019), NSERC Industrial Research Award (2018, 2017)