RESUME

Jinwei (David) Li

Tel: (437) 260-3332
Alt Tel: (416) 722-3722
E-mail: daviduoft.li@mail.utoronto.ca

EDUCATION

Forest Hill Collegiate Institute **Sep 2017- May 2020**
Relevant courses: Stem & Math Focused, SATII physics&math, AP calculus&mechanics, Euclid & Canadian senior math contest

University of Toronto
Bachelor of Applied Science in Electrical Engineering + PEY Co-op **Sept 2020- Present**
Relevant courses: Circuit Theory, Analog Electronics, Digital Logic, Semiconductor Devices, Programming Fundamentals, Hardware Design & Communication

SPECIAL SKILLS

Programming: Verilog, C++;
Other: Multisim, LTspice, Cadence Virtuoso, Altium Designer, Sentaurus, Rigol & Keysight testing instruments, MS office.

PROJECT EXPERIENCE

Project Leader, radio receiver circuit design, U of T

- Led the team to develop Subsystem A of the flexible radio transceiver, which consists of limiter, filter, mixer and amplifier circuits. The key steps included determining the system requirements and specifications, designing the various components of the circuit, and verifying the design using circuit simulation tools to ensure the correctness and reliability of the circuit. Responsible for hardware fabrication, as well as final testing and debugging.
- Collaborated with Project Manager and TA to develop weekly project process planning, meeting plans, clarify format requirements for delivery of documentation, and follow up on completion of all tasks.
- The filter circuit was designed according to the selected filter topology. Ensured that the design of the circuit meets the requirements of the filter, including passband, stopband, and attenuation characteristics. The resulting performance was better than the instructor's solution
- Layout the filter circuit: Use Altium design software to lay out the filter circuit on a 2-layer board. Ensured circuits are routed to minimize interference and reflections.
- Modified the given python script to run the test with the oscilloscope and multimeter. Used the test data to verify the performance of the filter circuit and ensure that it meets the requirements of the project. Sent the designed 2-layer board to production to ensure that the production process meets the relevant standards and specifications.

Team member-contact person, Eng. Strategies & Practice, U of T

- Managed a customer proposal project with a team of 6 people to propose solutions to bird deaths caused by building light pollution, including installing environmentally friendly lighting, installing bird protection devices, launching publicity campaigns and other measures to raise awareness of bird protection and reduce the impact of building light pollution on birds.
- To ensure smooth and effective communication between Birds Canada and Environment Canada's stakeholders, we closely track their needs, concerns and issues, and ensure that they are actively engaged in ecological conservation and environmental governance. Listen to their suggestions and opinions on ecological protection and environmental governance.

Team member GaN DC-DC Converter for Efficient Power Conversion, Capstone Design, U of T

- project involves designing a DC-DC power converter using GaN switches to minimize losses and for faster switching than traditional silicon switches. The input will be solar energy, with the converter scaling the voltage as required for storage, or for charging a device, depending on the mode of operation. The design will also require Maximum Power Point Tracking (MPPT) as is generally required in applications of solar energy, to maximize performance according to varying solar conditions.

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WORK EXPERIENCE

Founder & instructor, University Admissions & Counselling

- Provided consultation for more than 52 clients, understood their background and needs, and guided their undergraduate admission and application strategies in Canada, the United States and the United Kingdom. At the same time, communicated with students and parents in a timely manner, and provided study abroad programs that meet students' own conditions according to their learning experience and family situation.
- Problems and solutions concerning circuit theory are proposed and incorporated into the curriculum plan, with the goal of enabling students to apply theoretical knowledge to solve practical problems after they have mastered it.
- Instructed students to master the basic concepts, laws and theorems of circuit theory, one-to-one teaching of G12 course.

Coop Student, Design Engineering & Technical Services, Toronto Transit Commission

- Reviewed specification drawings for overhead power circuitry and utility lines.
- Drafted and reconciled contract documents with multiple vendors such as AMD,CIMA,Hatch,etc., including pre-award files such as request for services (RFS), request for supplier qualifications (RFSQ) for the IT, design and engineering departments, and post-award files such as work assignment releases (WARI), contractor invoices.
- Managed the day-to-day post-award activities for 60-70 active contracts at the same time; Maintained on-time release of WARIs 97% of the time; hosted or attended project kick-off meetings and remained the liaison between the client group and the consultant or external vendor group.

Circuit Analysis Studies using NI Multisim

- Built simulation circuits, demonstrate the simulation process, and use virtual instruments and simulation analysis methods to display the working state of the circuit in the form of waveforms and data. Have a deeper understanding of the structure, parameters, working principle of the circuit. The directions include circuit analysis, analog circuits, digital circuits, power electronic circuits, and high-frequency electronic circuits.

EXTRACURRICULAR

Sponsorship and Outreach director, UTEK2022

- Prepared sponsorship plans, attract returning and new companies to sponsor competitions, and be responsible for external media liaison, including establishing and maintaining relations with various media, maintaining cooperation with relevant media units, and expanding media resources.
- Carried out PR cooperation with relevant media, responsible for event planning, execution, follow-up and reporting, Responsible for the planning, writing, proposal, execution and other related work of the launch.

Electrical & Computer Engineering Ambassador

- Attended yearly Ontario University Fair to represent program to answer questions about admission and student experience; provided support and outreach for the engineering program to potential future engineering students.
- Organized and connected with engineering graduating students, and supported staff and peers at convocation celebration events.

CERTIFICATE/AWARDS

National AP scholar (Canada)

- The highest distinction awarded to students in Canada on university-level courses, scores of 4 or higher on 5 or more exams

Canadian Economics Olympiad – scored 2nd place in Canada

ECE295 Hardware & Communication Project Honourable Mention

ABOUT ME

- Solid basic knowledge of electrical engineering, master the basic theory and knowledge of circuit theory, electronic technology, control theory and so on. During my postgraduate period, I participated in the research and development of many projects, which enabled me to have a deeper understanding of the cutting-edge technologies and applications of electrical engineering.
- Outstanding independent analytical, troubleshooting and problem-solving skills with attention to detail. Strong learning and practice ability, excellent language expression and communication skills, able to quickly integrate into the work.