

# Kirk Lau

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## OBJECTIVE

To obtain a co-op position where I can utilize my educational background, interests and work experience in electronics, computer and optical engineering.

## EDUCATION

Applied Electronic Design Post Diploma Seneca College, Toronto, Ontario	2004-present Current GPA 3.8/4.0
Bachelor of Engineering, Engineering Physics, Majored in Electro-Optics and Photonics McMaster University, Hamilton Ontario	1998-2002 Final Year GPA 3.6/4.0
Continuing education Diploma, CNC Programming and CAM/CAD Seneca College, Toronto Ontario	2003-2004 GPA 3.9/4.0

## TECHNICAL SKILLS

Programming and Languages

- Microcontroller/processor programming in C and ASM (PIC, HCS12, etc)
- C, C++, BASIC, FORTRAN, Visual Basic
- VHDL
- PHP, CGI, PERL and shell scripting, also basic ASP and JavaScript
- PLC Programmable Logic Control

Instrumentations

- Function Generators, Oscilloscope and Spectrum Analyzer
- Computer/Microcontroller based Data Acquisition
- Optical Instrumentations

Design and Engineering

- Microcontroller programming and Embedded system design
- DSP filter Design and implementation
- PCB (Printed Circuit Board) Design
- Wireless System Analysis
- FPGA design
- ASIC Basic design
- DFMEA Analysis, Statistics, Probabilistic and Quality Management
- Optical System Design

Software Packages and Tools

- Mentor Graphics Expedition PCB
- Mentor Graphics FPGAdvantage, Altera MaxPlus II
- Cadence ICFB packages, basic OrCAD and PSpice
- MATLAB, Maple, National Labview
- Agilent VEE, VSA
- MasterCAM, Discreet 3D Studio (Max)
- Macromedia Flash, Firework and DreamWeaver,
- Adobe PhotoShop, ImageReady, PageMaker and goLive
- DOS, UNIX/Linux, Windows all versions, Corel, MS Office, MySQL

Hardware and Electronics

- Digital and Analog circuits, Amplifier circuits design
- TTL and Micro-Controller based Circuits designs and Implementation
- Computer Interfacing
- Basic CAN (2.0 A and B) interface

## HIGHLIGHTS OF QUALIFICATIONS

- Flexible to work under strict project time-scales
- Ability to work independently and/or in a team
- Learns quickly, effective in handling and prioritizing multiple tasks
- Proven work ethic, good communications skills and responsible worker
- Ability to apply quick and accurate decisions
- Honest and reliable, highly motivate
- Multilingual, Fluent in English, Cantonese, and also able to communicate in Mandarin.
- Member of IEEE student division at Seneca College

## TECHNICAL WORK EXPERIENCES

### Lab Technician

Sep 2004 - present

School of Electronics and Computer Engineering Technology  
Seneca College, Toronto, ON

- Monitor the students in the labs
- Demonstrate a thorough knowledge of the equipment
- Solidify the concepts presented by the professors by answering questions related to the application of the theory previously presented

### Webmaster

Jan 2005 - present

School of Electronics and Computer Engineering Technology  
Seneca College., Toronto, ON

- Maintain school webpage using Dreamweaver, Automated Shell Script, and varies development tools
- Eliminate bugs and errors
- Modify the site according to feedback from staff and professors

### Technical Engineering Sales

Jan 2003 - present

Technical Support, Sales, and Product Decisions  
Supremetronic Inc., Toronto, ON

- Provide technical support and specification on products and service
- Exercise safety precautions on products and provide same details to customers
- Decide on new items to stock in terms of technical aspects and potential

### Summer Student, Office of Chief Engineer

May 2001 - Sep 2001

Research Student in Nuclear Reactor Physics  
Atomic Energy Canada, Deep River, ON

- Created program to extract, analyze, manipulate over 1GByte of nuclear database
- Performed computer simulation test of Neutron Cross Section Analysis (MCNP)
- Simulated Accidents Situation with Computer (Loss of Coolant Accident, LOCA)
- Benchmarked a new cross section database and design computational analysis routine.

### Electrical/Electronics Design

Sep 2001 - May 2002

Solar Car Challenger, Electrical Team  
McMaster University, Hamilton, ON

- Designed and created layout of Electrical and Control system
- Provided mentoring in electrical components and theories (e.g. Solar cell IV-characteristic, Microcontroller programming, etc.) to junior members
- Analyzing batteries' characteristics and benchmarked different solar cells

## REFERENCES

Available upon request