

Alexander Brukson

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Objective

To advance the field of medical research and medical practise through the use of engineering principles to create stronger and more robust medical devices for the benefit of both patient and medical professional.

Summary of Strengths

- Strong understanding of electric circuits and designing circuits.
 - Programming skills in C, Java, Matlab, Actionscript 3 and some VHDL and LabView.
 - Strong interpersonal skills.
 - Strong oral and written communication.
 - Ability to work in teams as well as individually.
 - Excellent problem solving and analytical skills.
 - Strong computer skills using computer software such as Matlab and Simulink as well as Microsoft Office.
 - Understanding of the principles of electric systems and control systems.
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Relevant Work Experience

Research Assistant

Biophotonics and Bioengineering Lab, Ryerson University, Toronto, Ontario

Duration: May 2011 – May, 2012

- Designed and prototyped a trigger circuit for imaging equipment.
- Constructed several timer circuits for variable applications.
- Designed and constructed a PCB board for the prototype circuit.
- Used Matlab to develop graphing program for research application.
- Conducted literature reviews to design appropriate experiments.

Other Work Experience

Assistant Maintenance Engineer

RT Recycling Technology, Toronto, Ontario

Duration: Summers (May-August) 2008, 2009, 2010

- Maintained equipment according to outlined schedule.
- Worked in a team to organize the installation of a new hydraulic pump.
- Worked with a group to install a new electric motor on an injection moulding machine.
- Assisted in constructing a new workstation for employees.

Sales Associate (September 2008 – June 2010), Assistant Manager (June 2010 – May 2011)

Globex Windows and Doors Inc., Vaughan, Ontario

- Ensured targets of leads and sales met for each month.
 - Managed appointments with customers.
 - Programmed computer software to run targeted telemarketing campaigns.
 - Relayed sales information to upper management.
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Awards

Undergraduate Entrance Scholarship, 2008-2009

Agnes and Gordon (Twambly) Brash Award for Academic Excellence, 2010-2011

NSERC Capstone Design Project Funding Competition, 2011-2012

Education

Candidate for Masters of Applied Science in Mechanical Engineering, 2014

University of Waterloo, Waterloo, Ontario

- Specialized in microfluid technology

Bachelor of Engineering in Biomedical Engineering, 2012

Ryerson University, Toronto, Ontario

- Graduate with honors
 - Student representative for the Course Union of Biomedical Engineering (CUBE)
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Publications

Cuiru Sun, Kenneth K. C. Lee, Barry Vuong, Michael D. Cusimano, Alexander Brukson, Antonio Mauro, Nigel Munce, Brian K. Courtney, Beau A. Standish, and Victor X. D. Yang. **Intraoperative handheld optical coherence tomography forward-viewing probe: physical performances and preliminary animal imaging.** Biomedical Optics Express 2012 Vol. 3, Issue 6, pp. 1404-1412.
