Institute for Optical Sciences (IOS)

Research Associate position

2013 June 19 by hkim

Research Associate position at the Impact centre.

Description:
Scientist position to carry out applied research at the Impact Centre. Background knowledge in the following areas is needed: devices and device development, various sensors and sensing/detection mechanisms, chemical sensing and separation techniques, gel electrophoresis, handling and sensing of proteins, ceramics and solid-phase synthesis. Candidate must be able to work with others, as well as carry out individual work. Candidate is expected to take part in other activities of the centre, including mentoring students, preparing reports and proposals, and interacting with industry

Qualification:
PhD level in electrical engineering with postdoctoral experience and ability in a variety of application areas.

Please email your application to: employment@optics.utoronto.ca

Priority will be given to Canadians and landed immigrants.

Posting date: June 19, 2013
Closing date: June 29, 2013

Four IOS companies selected as finalists for OCE ELP Competition

2013 May 8 by smcauley

The Experiential Learning Competition, taking place at the Ontario Centres of Excellence (OCE) Discovery 2013 conference on May 27 and 28, is an opportunity for 10 companies based at Experiential Leaning Program (ELP)-funded sites to showcase their innovative products and business models. Out of these 10 companies, 4 have been working with the IOS to accelerate the commercialization of their scientific discoveries: Chematria, Sonola Imaging, Lunanos, and Pathcore. Each of these teams will submit a business plan and present a 5-minute pitch to a panel of expert judges with up to three teams winning up to $25,000 to support their businesses.

OCE’s ELP program supports $4.55 million among nine programs, including the IOS, to manage and strengthen programs for young entrepreneurs that will accelerate and enhance the quality of the new companies and industry collaborations at Ontario universities and colleges.

More information on the competition and the competing companies are available on the competition webpage.
Grand Challenges Canada Stars in Global Health Awards

2013 April 29 by smcauley

We are excited to announce that a number of individuals affiliated with the IOS have been awarded Grand Challenges Canada Stars in Global Health Awards. The program, funded by the Canadian government, awards $100,000 to develop bold ideas with big impacts on global health. In the round of awards announced today, $10.9 million was distributed to 43 Canadian based projects and with another 59 projects based in 13 low- and middle-income countries. As part of the announcement Peter Singer, CEO of Grand Challenges Canada said “Canada’s commitment to bold ideas with big impact is captured in each of these more than 100 peer-reviewed projects. By matching talent with opportunity, Grand Challenges Canada is contributing to saving and improving lives.”

Grow-your-own bacterial defenders against waterborne diseases
Prof. David McMillen, IOS faculty and Associate Professor in the Department of Chemical and Physical Sciences, University of Toronto Mississauga
We will engineer bacteria to reside safely in the intestinal tract, detect disease onset, and produce viruses to target and kill invading microbes. Because the bacteria are self-replicating, they can be grown locally with minimal infrastructure.

Battling Antimicrobial Resistant Microorganisms with a Monitoring System Tailored for Under-Resourced Settings
Dr. Richard McAloney, IOS Director of Technology Management
Antimicrobial resistant microorganisms cause infections with prolonged illness and increased risk of death. A simple and widely accessible detection system would allow universal screening more widely and significantly reduce this global threat.

Reducing the health and environmental impacts of pesticides through early toxicity evaluation
Chematria Inc.
Pesticides have been effective in increasing crop yield at the expense of harmful impacts on human and environmental health. We developed a technology that can quickly and cheaply identify potentially safer new pesticides.

Finding new malaria treatments using existing drugs
Chematria Inc.
We have developed a technology for drug repurposing that identifies new indications for existing drugs. Repurposing drugs that have already been approved can reduce development time and cost, thus making treatments accessible to the developing world.

Back-End Developer (Summer Internship)

2013 April 4 by hkim
GymLife is a fast pace startup in Toronto focused on developing online tools to help its users to overcome obstacles they face in their journey towards maintaining a healthy lifestyle.

We are currently looking to hire a summer intern with strong knowledge in back-end development:

**Requirements**

- Work well on a team and be willing to pitch in however needed to accomplish its goals
- Strong organizational skills and attention to detail
- Stay up to date with methodologies and technologies

**Skills**

- Proficient in Object Oriented PHP, and database management (MySQL).
- Have some experience with MVC frameworks
- Familiarity with internet security is a plus.
- Bonus points for experience with Social Media APIs and application development on iOS/Android

**What we offer**

- An opportunity to learn more about running a startup.
- An environment that fosters innovation and professional development.
- An opportunity to work within a small tight knit team and make a big impact.
- A culture where everyone really cares about what they’re working on.
- An opportunity to attend startup networking events and professional workshops.

Our ideal candidate is someone who is a fast learner and extremely resourceful – the type of person who likes to get things done. You should also be passionate about the potential of GymLife and have a positive “YES” attitude. If this sounds like you, then we’d love to hear from you. Simply send your resume to career@gymlife.com. Selected candidates will be invited for an interview.

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**Front-End Developer (Summer Internship)**

2013 April 4 by hkim

GymLife is a fast pace startup in Toronto focused on developing online tools to help its users to overcome obstacles they face in their journey towards maintaining a healthy lifestyle.

We are currently looking to hire a summer intern with strong knowledge in front-end development:

**Requirements**

- Work well on a team and be willing to pitch in however needed to accomplish its goals.
• Strong organizational skills and attention to detail.
• Continually deliver better front-end performance and usability.
• Graphic design for both digital communications and print.
• Stay up to date with methodologies and technologies.
• Excellent knowledge of cross-platform and cross-browser issues.
• Creating responsive web pages that look great on desktop and mobile devices.
• A love for designing great products.

Skills
• Strong HTML and CSS skills.
• Strong knowledge of jQuery, Javascript, and AJAX.
• Proficient with Photoshop, Illustrator, & MS Office products (Excel, Word, PowerPoint).
• Familiar with PHP programming, and MySQL.
• Strong communication and interpersonal skills.

What we offer
• An opportunity to learn more about running a startup.
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If this sounds like you, then we’d love to hear from you. Simply send your resume and your work samples (a link to your portfolio, if available) to career@gymlife.com. Selected candidates will be invited for an interview.

Intermediate Software Developer (Medical Imaging)

2013 March 25 by hkim

Position
Intermediate Software Developer (Medical Imaging)

About PathCore Inc
PathCore is a Toronto-based software startup specializing in digital pathology image-management and analysis software. We are located in downtown Toronto, steps away from Queen’s Park metro station and the MaRS discovery district. More information at www.pathcore.ca.

About the Position
PathCore is currently recruiting for a highly energetic and motivated software developer with past experience in medical imaging software. Suitable candidates should consider themselves highly independent and goal oriented developers, able to deliver results on time. We expect that this role and its responsibilities will be dynamic and expand as we strive to meet our clients’ needs. An interest in developing quality software via proper quality management systems is also desirable.

Required Skills
- 7+ years of software development experience
- Comprehensive C/C++ development knowledge with a focus on object oriented design
- Good knowledge of software development lifecycle processes
- Past experience with creating DICOM compliant services (SCP/SCU) via DCMTK or GDCM
- Good knowledge of SSH, HL7 and TCP/IP communication protocols
- Past experience with relational database design (MySQL, SQL, ODBC)
- Knowledgeable in cross-platform library development (Windows, Linux, MacOS)

**Desirable Skills**

- Project management experience and/or certifications
- Experience with implementing quality management systems for software
- Experience with using software development tools (source control, unit testing, bug tracking, continues integration, etc.)
- Knowledge of UI development libraries such as Qt
- Medical image analysis (i.e. algorithm development) background and/or training

**Contact Information**

Interested candidates may submit a CV to careers@pathcore.ca.

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**Prof. Mildred Dresselhaus will visit the Institute for Optical Sciences and will deliver 3 lectures**

2013 March 21 by hkim
Professor Mildred Dresselhaus, from the Massachusetts Institute of Technology, Cambridge, MA, will visit the Institute for Optical Sciences from April 22 to 24 as a Stoicheff Lecturer and a Distinguished Visiting Scientist (DVS). More information on the Stoicheff lecture is available here, and for the DVS lectures here.

Our holograms featured on Discovery Channel

2013 March 13 by hkim

On Thursday March 7, 2013, our holograms were featured on an episode of Daily Planet Discovery Channel. What does the future of 3-D hold in store? Lucas visited IOS to find out. The full episode can be viewed here.
DVS visit of Thomas Schmidt in February

2013 January 25 by hkim

We are thrilled to have Prof. Thomas Schmidt for Physics of Life Processes at the Leiden Institute of Physics at Leiden University, Netherlands visiting us in February as part of our Distinguished Visiting Scientist (DVS) series.
While in Toronto, Prof. Schmidt will present lectures on February 11, 12, and 14th, as well as tour various labs at the University of Toronto and meet with both faculty and graduate students. Look out for more information at http://www.optics.utoronto.ca/academic/dvs/thomas-schmidt.

**TechnoStorm: Brainstorming solutions for Grand Challenges Canada**

2013 January 10 by smcauley

The most significant problems facing the world will be solved through interdisciplinary collaboration and the IOS is fortunate to be able to bring together faculty, staff and students from a broad range of technical and academic backgrounds. With the goal of creating some exciting proposal ideas for the *Grand Challenges Canada Stars in Global Health program*, which aims to enable innovators to improve global health conditions, the IOS is hosting a 2 day science ‘hackathon’ and brainstorming event on January 25th and 26th. During TechnoStorm, participants will stay in the TechnoLABS space and apply their diverse knowledge and experience to create new solutions to trends in global health and submit these to the Grand Challenges program. More information on this unique event is available [here](#).