

Hi there,

I want to take this opportunity to introduce myself and explain a little bit why I think I'd be the perfect fit at IBM.

Over my past 6 coop terms I've been given the chance to work with a wide array of companies and work on many complex problems. I've done back-end programming for the Genome project housed at the Ontario Institute for Cancer Research, and then gone on to do product management, UX/UI design and programming for a small startup that develops systems for athletic organizations. My co-op terms cumulated with the IBM Extreme Blue program where I worked on a team developing a predictive solution for cancer survivors called Canary.

I embarked on a journey starting as a novice programmer, to now a seasoned veteran of the on-going battle programmers are waging on the digital world. I have developed strong object oriented programming skills as well understood and applied practical software design principals to my various projects. However, as a Systems Design Engineer I have managed to merge programming skills with design principals. I have developed a UI/UX knowledge that can only come from experiencing the success that comes with a beautifully designed and engineered product. I have also gained powerful problem solving skills from dealing with countless issues that I saw as Product Manager, Mobile Software Developer and every role in between. I have also been able to create and encourage cross-team collaborative environments in my many leadership roles through extracurricular activities.

Along the way I discovered a passion of mine to bridge a gap that exists in our society. The gap I'm talking about is the one between the physical world and the digital world. The amount of information that lies in the physical domain, the gigabytes and terabytes of data that we interact with using our senses is astounding. Consider how many sights we see, the voices we hear, the change in our body temperature as we react to our environment. As an engineer I see all of these as data points, places where we can extract information, analyze it and use it for a meaningful purpose.

After I graduate, I'd like to take my past experience in health care, as well as my considerable problem solving and user experience skills to work on projects involving Human and Computer Interaction in the medical world. My ideal job would involve working on ways to bring real world information into the digital world in meaningful and innovative ways.

Thanks for your consideration,
Sukhwinder (Sonu) Lall

Sonu Lall

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Technical Skills

Web

JavaScript/AJAX ●●●●○
HTML/CSS ●●●●○
MySQL/PHP/Perl ●●●○○
ASP.Net/C#/Ruby ●●○○○

OS

Windows ●●●●○
MacOSX ●●●●○
Linux ●●●○○
FPGA ●●○○○

CAD

AutoCAD ●●●○○
SolidWorks ●●●○○

OOP

XCode/ObjC ●●●●○
C++/JAVA ●●●●○

Design

Photoshop ●●●●○
Illustrator ●●●○○
UI/UX Design ●●●●○

*Note: One circle means exposure, 5 circles means expert

Projects

IBM - Extreme Blue (Canary Health Care Solution)

Technical Intern
April, 2014 - Sept. 2014

- Used [teamwork](#) skills to create a [predictive, personalised](#) solution for [cancer survivors](#).
- Created a [hybrid application](#) for iOS and Android using [IBM Worklight](#).
- Lead [UX and UI design](#) of application to develop an [intuitive and interactive](#) user interface.
- Helped in the development of [predictive model](#) using [pattern recognition techniques](#) and IBM's Predictive Maintenance Quality (PMQ).
- Used [IBM Watson Visualization](#) (RAVE) to create visually appealing charts and graphs of user biometric history and PMQ results
- Pitched solution to various [IBM executives](#) at IBM headquarters.

Avoca Technologies - MyplayXplay

Junior Product Manager and Lead Developer

Jan. 2013 - April 2013 | Sept. 2013 - Jan. 2014

- Excelled in a [lead](#) role in bringing an [industry leading](#) product to market
- Involved in [cradle to cradle](#) development and production of system with Agile Methodologies
- Used extensive [Objective C and Xcode](#) knowledge to lead development team; developed a fully native [iOS solution](#)
- Lead [UX design and visual design](#) of iOS 6 and iOS 7 apps using powerful Adobe [Photoshop and Illustrator skills](#)
- Attended several [client meetings](#) with Premiership Football and professional Rugby teams

Engineering Project (3rd year) - Microbat Sonar Systems

Product Manager and Developer

April 2013-Sept. 2013

- Created an innovative product that used sonar technology to detect distance to objects for the [visually impaired](#)
- Used an [Arduino microcontroller and C programming](#) to translate data to [variable haptic feedback](#)

Lightitude Competition - Oara

Project Lead and Mechanical Designer

July 2012 - Sept 2012

- Created multiple [CAD models](#) of a lighting system for the arctic circle that uses [innovative engineering techniques](#) (induction circuits, vertical helix wind turbine, etc);
- Addressed possible [health and safety](#) concerns using an [FMECA](#) diagram and a [decision matrix](#) using sound engineering and technical analysis;

Mercatus Technologies - Price Chopper

Mobile Application Developer

Sept 2011-Dec 2011 | May 2012-Sept 2012

- Used [cutting edge technology](#) to develop internal app demos (QR, NFC, Blue tooth, Voice Recognition, Image Recognition, Geofencing);
- Employed [Agile and Rapid Prototyping methodologies](#) to create high level, interactive apps;

Ontario Institute of Cancer Research - Genome Project

Genome Software Developer

Jan 2011-Apr 2011

- Used [JavaScript](#) to implement touch gestures (iPad);
- Studied and applied [complex data structures](#) using hash tables and arrays to create the most [efficient system](#) to save genes and genome snapshot;

Education

University of Waterloo

Candidate for Bachelor of Applied Science, Systems Design Engineering

Expected graduation April 2015

Awards

- University of Waterloo President's Scholarship;
- University of Waterloo Carl A. Pollock Scholarship;
- Rotary Scholarship for Academic Excellence and Extracurricular Activities ;
- The Professional Engineering Ontario Scholarship;
- Book Award for Computer Science [95%] and Computer Engineering [93%] ;

Interests

- Brazilian Jiu Jitsu - (2.5. years)
- Muay Thai - (2 years)
- MMA - (2.5 years)
- 1st Degree Black Belt in Tae Kwon Do
- Reading, Drawing, Graphic Design, Cooking