

# Kusamdeep Brar

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## OBJECTIVE

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I am a dedicated and organized individual with experience in development and testing in an agile environment, looking for an opportunity as a software engineer. I am seeking to gain valuable work experience in a team oriented atmosphere that will help me grow professionally and personally.

## PROFESSIONAL EXPERIENCE

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*Capstone Project* *Calgary, Alberta* *Sep 2017 – Apr 2018*  
*University of Calgary*

The goal of this capstone project was to develop a web application that would render a 3D model of a heart using data from CT and MRI scans. This project was designed for Circle Cardiovascular Imaging.

- Worked with a team of 4 to engineer and implement a design appropriate for the application. This included modeling the architecture with UML drawings of the high and low level detailed designs.
- Acted as a liaison between multiple stakeholders to keep members informed and the project on track.
- Created ASCII and binary stereolithography and signal intensity file parsers and added the ability to manipulate the generated models.
- An agile workflow was adopted, where members participated in scrum and sprint meetings.
- This project was developed using the Angularjs framework, three.js 3D library, HTML and javascript.

*IBM Canada* *Markham, Ontario* *May 2016 – Aug 2017*  
*Software Engineering Intern (DB2 Regression Team)*

- Monitored and maintained regression test suites for various releases of the DB2 product, ensuring 100% clean test case runs pre-release and an average of 98% daily clean test cases.
- Established an infrastructure to automate the daily tasks of the regression team, this included detecting test case failures, checking for known errors, and logging the error.
- Maintained and developed internal web pages to aid developers and testers with automating regression testing for each local build and for monitoring submitted batches. This was done using html, php, javascript, and css.
- Updated and enhanced the regression infrastructure, including optimizing the database structure which allowed for more efficient queries and faster response time of webpages.
- Worked within an agile environment by actively participating in scrum and sprint meetings.

## TECHNICAL SKILLS

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**Programming Languages, frameworks, and libraries:** C, C++, Java, MIPS assembly language, Perl, SQL, PHP, Javascript, HTML, CSS, bootstrap, socket.io, ajax, node.js and Python. Also worked with javascript libraries like THREE.js and Tone.js and web frameworks like Vue and AngularJS.

**Computer Tools:** Visual Studios, Eclipse, NetBeans, MySQL, Brackets, UML, JUnit, GitHub, and Microsoft Office (Word, Excel, PowerPoint).

## EDUCATION

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*University of Calgary*

*Calgary, Alberta*

*Sep 2013 – Apr 2018*

- **Bachelor of Science in Software Engineering**
- **Awards:** Jason Lang Scholarship, Alexander Rutherford Scholarship, and University Entrance Scholarship

## ACADEMIC EXPERIENCES

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- **Big Data Analytics:** This class focused on current technologies and methods used to process large volumes of data. This included an introduction to map-reduce and spark. There was also a focus on supervised (linear and logistic regression) and unsupervised (K-means clustering) machine learning.
- **Web security:** This class focused on understanding vulnerabilities of networked systems, tools and techniques for detection and protection against such attacks including firewalls and intrusion detection and protection systems, authentication and identification in distributed systems, and cryptographic protocols for IP networks.
- **Principles of operating systems:** This course offered an introduction to operating systems principles. Including performance measurement, concurrent programs, the management of information, memory and processor resources.
- **Software testing:** Explored the concepts, methods, techniques, processes, and tools for software testing.
- **Software project management:** Analyzing the methods, tools, and techniques for software process improvement and software project management.

## PROFESSIONAL DEVELOPMENT

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*Grace Hopper Celebration of Women in Computing*  
*IBM Cascon*  
*Lighthouse Labs - Html[500]*

*Houston, Texas*  
*Markham, Ontario*  
*Calgary, Alberta*

*Oct 2015, Oct 2017*  
*Nov 2016*  
*Jan 2015*

## REFERENCES

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Available Upon Request