

GURPREET SINGH

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EDUCATION

Master of Computer Science. (GPA: 3.9/4.0)
University of Ottawa

September 2017 – December 2018

Bachelor of Technology in Computer Science & Engineering. (GPA: 7.40/10.0)
National Institute of Technology (NIT) Jalandhar, India

July 2010 – June 2014

TECHNICAL SKILL SET

- Programming Languages: Java, Python, C, C++, JavaScript
- Frameworks: Angular5, Spring Boot, Hibernate, Android
- Web Technologies: Angular 5, HTML, CSS, XML, JSON
- Database Technologies: MySQL, Oracle SQL, MongoDB, OrientDB
- Machine Learning: Scikit Learn, NLTK, Pandas, TensorFlow
- Platforms: Visual Studio, Eclipse, Jupyter Notebooks, Spyder, Tensor Flow, SoapUI.
- Code Repository : Git, SVN, Perforce
- Project Management: JIRA

PROFESSIONAL EXPERIENCE

Morgan Stanley – Technology Analyst Intern

May – August, 2018

- Developed a web tool to search and extract the data from the files, messages and other Exchange data sources involved in the post trade processing. The data sent by the exchange is hard to access or is in unreadable format so we used regex search on multiple file formats.
- Layout of each file or message was linked to its format and brainstormed for multiple other features using ML.
- Used angular 5, ag-grid, CodeMirror, Java, Spring boot in the technology stack to develop the tool.
- Took ownership of the project and developed it from scratch.

University of Ottawa – Teaching Assistant

September 2017 – April, 2018

- TA for the course ITI 1120 Introduction to Computing in Python and ITI 1121 Introduction to Computing II.
- Conducted labs and helped students in solving the algorithmic problems in Python and Java.
- Proctored the quiz, midterm, final exam and corrected the assignments.

British Telecommunications plc. – Software Engineer

November 2016 – July 2017

- Worked on the Auto Routing Engine of BT which supported the addition of inventory items in the graph database by parsing the inventory excel file and using gremlin queries for accessing the graph database.
- Helped in designing the architecture of the inventory management of BT to update the old data model to NoSQL data model for better performance and maintenance using Java, gremlin, RSA and orient dB architecture.

Samsung Research India, Bangalore – Senior Software Engineer

March 2016 – November 2016

- Worked with Samsung Health Services group on variety of projects ranging from developing data sync feature for 'SHealth' which allows the user to sync his/her fitness data from various service providers to that of 'SHealth' to working on Strength training which is a fitness Application for Indoor Based Exercise Recognition and comfort analysis.
- Worked to optimize the power consumption of Pedometer in SHealth which involves estimation based steps counting by recognizing the phases involved in walking instead of continuously running the step detection algorithm on the accelerometer data coming from mobile sensors which consumes a lot of mobile battery.
- Designed and implemented the Strava Module being part of the Service interoperation team of S Health. It helped in mutual syncing of all the Strava and S Health fitness data.

Samsung Research India, Bangalore – Software Engineer

June 2014 – February 2016

- Member of Sensor Team which assists the SHealth Application in communicating with the external medical devices like Heart Rate Monitor, Blood Pressure device, Bluetooth enabled Weighing Scale etc. at the Sensor level.
- Member of Wearable team which assists the Wearable devices (Gear, Gear 2, Gear S, Gear S2) in communicating with the S Health Application. The communication involves syncing of the data between the mobile device and the wearable.
- Contributed in restructuring the architecture of the module in Gear Manager using the basic design patterns and java

concepts (oops, collections, Multithreading, etc.)

- Worked on Flagship Gear device of Samsung in SAMSUNG HQ (Suwon, South Korea) for 6 months. Designed and implemented from scratch Data base Comparison Tool using Java
- Worked on a POC (Concentration measuring while playing dart game) and formulated an algorithm to manipulate the accelerometer and gyroscope data from the Samsung Android Gear resulting in generating useful information for the user to improve the concentration while playing dart game.

Aranya Consulting, New Delhi – Software Engineering Intern

May 2013 – July 2013

- Secure Group Communication
- Created an Email Messenger which allows to send messages in a Group of members
- Provided security to the process using Digital Signature scheme and DES Algorithm.

BCMP Overseas – Intern

September 2012 – November 2012

- Online Scarves Trading Website

PROJECTS

Fake News Detection

May 2018 – December 2018

- Working on the detection of the fake news using Natural Language Processing techniques.

Named Entity Recognizer (NLP)

September 2017 – December 2017

- Compared the performance of different Named Entity Recognizers on Social Media text and Newspaper text. Used OpenNLP and CoreNLP tools on ACE and Twitter datasets.

Music Store Web Application

September 2017 – December 2017

- Developed an ecommerce music store web application which supported purchasing music cds and the payment gateway as well. It was developed in a team of 4 members using html, JavaScript, Jsp and java using MVC pattern and SOAP web service.

Final Year Project, NIT Jalandhar

October 2013 – April 2014

- Search Engine Optimization - The idea was to make a search engine and optimize it (both time efficient and more result oriented) and then connect the search engine to the server of the college where all the data of college is kept in multiple formats like Pdf, Doc etc.

Other Side Projects

August 2012 – April 2014

- Blood Bank Web Application, Pong game using Python, Sudoku (Android application), Hospital Management System.

PAPERS PRESENTED

- An intelligent session transition system towards low power walking step estimation – FTC IEEE Conference, Vancouver, Canada *November 2017*
- A musical guidance system for ergogenic benefits in workouts - FTC IEEE Conference, Vancouver, Canada. It demonstrated the mechanism to boost the performance of the user while doing workout. *November 2017*
- Concentration Index in Dart Game - Samsung Research India, Bangalore. The paper reached the final stage of review committee in Samsung HQ (South Korea). *May 2015*

LEADERSHIP & ACTIVITIES

- Member of Sama Foundation, an NGO BT has collaborated with which aims to provide education to poor children.
- Have taught basic computer and spoken English courses to the children with physical disabilities.
- Organizing Head of OPENGEEST, a society of Computer Science department during National level Undergrad TechFest.
- Head of 'ALGORYTHM' - organized this national level algorithm-design contest during undergrad TechFest.

LinkedIn and Other Profiles:-

- **LinkedIn** - <https://www.linkedin.com/in/gurpreetsingh-uottawa/>
- **GitHub** - <https://github.com/gurpreetsingh91>
- **LeetCode** - https://leetcode.com/gurpreetsingh_91/