SPURRYA JAGGI

University of Waterloo, BAsc Mechatronics Engineering, **Graduating 2018**

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SKILLS

Languages:
Java, C#, C++, C, JavaScript, Python, MATLAB, SQL

Front End:
Angular.js, jQuery, Bootstrap

Back End:
.NET, Node.js, Express

Testing:
Selenium, Chai, Mocha

Other:
Amazon Web Services (Dynamodb, EC2, Lambda etc), Powershell, Azure

WORK EXPERIENCE

Grid Cloud Software Developer - NVIDIA

- Created a mock service in Node.js that allowed the team developers to lose dependency on other services during the development process.
- Developed full stack features to be used by 1 million of game developers in Python, wrote unit and integration tests and deployed them onto AWS.
- Participated in major engineering reforms such as choice of the tech stack used, cloud services used (AWS/Azure), development of the pipeline flow and type of engineering developement.

Software Consultant - BDO Solutions

- Brought a large scale two year long project in .NET stack to completion for Dairy Farmers of Ontario that manages statewide milk distribution by working with the client for requirements, self managing time resources and testing to ensure high quality.
- Initialized the development for a newly secured contract with Dairy Farmers of Nova Scotia, refactoring the above application according to customer requirements.

Software Engineer - DBRS Limited

- Developed an Excel plug-in in C# that is used by over 200 analysts allowing them to import, process and export financial data which was previously done by manually uploading to an internal website, saving ~1100 hrs/month in company time.
- Implemented and deployed full-stack features requested by financial analyst for the internal web application using C#, Angular and Entity framework.

Web Developer - Knowroaming Inc

- Developed a browser testing GUI with JavaFX and Selenium to create automated test suites, making User Acceptance Testing coverage upto 80%.
- Led the development of the customer facing mobile website using PHP, jQuery and Java.

PROJECTS

Space Invaders - Programmed space invaders in C which plays on the LCD display of an ARM- Keil microcontroller. Used a multi-threaded architecture, semaphore locks and hardware interrupts to interface with peripherals such as the Joystick, LEDs and Push Buttons.

Path Follower - Configured, tested sensors, and programmed microcontroller using C creating a path following robot. Illuminated surface with infra-red LED and steered the robot using photo-diode.

Sugar Nanny - Created a web app at UofTHacks that tracks sugar levels and provides insulin recommendations based on food intake. Wrote the front end in Angular.js and added backend features with Python & Flask.
Placed in **Top 10 hacks** and won **'Best Life Saving App'** and **'Best use of AWS'**. Featured On: Veeva

Pebilepsy - Developed a nocturnal epilepsy tracker and prevention application. Wrote the Android platform to store and upload data to the web, recording and visualizing the seizure-like incidents.
Won **'Best Pebble App'** at Hack the North. Featured On : Hacker News, DevPost , Med Gadgets

Potentiometer - Calibrated an infrared sensor output using Arduino, C and Python to fit a curve to predict the distance from an object with 0.15 cm accuracy

Music Notes - Used frequency analysis to transcribe classical piano pieces into sheet music using MATLAB. Resynthesised the notes clip and used statistics to determine the accuracy of resynthesis.

MP3 Player - Programmed an MP3 player software in C with functionality such as skipping to the next/previous songs and playing the song at an altered speed rate.

CalFit - Chrome notifications that get triggered based on the most optimal time for an customer service oriented employee to take a break. Created the entire backend service layer in NodeJS and MongoDb and integrated Chrome plugin. Hosted on Microsoft Azure and created the promotional video.