Jay Patel

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EDUCATION

University of Colorado Boulder **August 2019 – May 2021**
Teaching Assistant - Programming Workshop in C++
Master of Science in Computer Science, Current GPA – 3.9/4
Relevant Coursework: Analysis and Design of Algorithms, Object Oriented Analysis and Designing, Natural language processing, Machine Learning

Vellore Institute of Technology, Vellore, India **July 2014 - May 2018**
Bachelor's in Computer science & Engineering GPA: 8.94/10.00
Relevant Coursework: Data Structures, Algorithm Design and Analysis, Probability and statistics, Operating Systems, Data mining and Data warehousing, Software Project Management, Software Engineering, Agent based Intelligence System

TECHNICAL SKILLS

Languages: C++, C, java, python
Web Technologies: Angular 5, Bootstrap, JavaScript, HTML5, CSS3, PHP
Development IDEs: Visual studio, code blocks, Eclipse,
Libraries: Tensorflow

Databases: MySQL
VCS: GitHub, ClearCase

INDUSTRY EXPERIENCE

Software Engineer at Philips Healthcare, Bangalore **July 2018 - June 2019**
https://www.usa.philips.com/healthcare/solutions/magnetic-resonance/imaging-systems

- Worked on development of driver software for next Generation Multi-Nuclei capable MRI machine, in C++.
- Designed and developed a real time magnetic event logging tool, consisting of serializer and de-serializer for logging the events in JSON format.
- Migrated the Ruby hardware testing code of RF signal receivers to C++.
- Improved the coding standard and complexity of existing Codebase with the help of TICS (Code Evaluating Tool) from 76 percent to 84 percent.
- Developed a utility to apply the band filter as per the simulated frequency generated by Oscillator for testing purpose. The aim of this utility was to get the proper signal strength and construct the better image.
- **Skills/Technology**: C++, UML diagrams, Software designing, VxWorks, Git, ClearCase, TFS

Software developer Intern at Philips Healthcare, Bangalore **Jan 2018 - July 2018**

- Developed a graph visualizer for the hardware configuration file, which showed connection between various sockets and plugs of different hardware of MRI machine. Integrated the C++ code with JavaScript d3 library.
- Created dynamic tool to make tree view of various components of MRI machine from XML file in C#

ACADEMIC PROJECTS

Hotel Review sentimental analysis (Natural language processing) **Sep 2019**

- Classification of hotel review into positive and negative class using Logistic regression model and Neural Network, after scrapping and cleaning the data from online websites.

Next Phrase Suggestion (Natural language processing) **Oct 2019**

- Studied about various probabilistic language models and then implemented the Shannon generator using 3-grams to suggest the next phrase on the top of given text, with very low perplexity.

Real Time Lane Line detection on the road (Final Year Project) **Jan 2018 – April 2018**

- The detection of white lanes on the roads using OpenCV library was done along with the relative distance between the side and center of the lane was detected.
- With the help of the neural network, the lanes having different intensity of white and yellow colors were more accurately detected.

Fire Detection (Image Processing) **Oct 2017**

- Real time fire detection system was developed using convolutional Neural network. Image processing was done in OpenCV library.