Abhishek Suryavanshi

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Education

Indian Institute of Technology, Guwahati   Aug. 2016 – Sept. 2020
Bachelor of Technology in Computer Science and Engineering   *Guwahati, Assam*

Experience

Microsoft   **July 2020 – Present**
Software Engineer   *Bangalore*
- Power stack owner for the next gen Surface ProX device.
- Worked closely with different teams in Qualcomm and Microsoft to improve the power consumption of different subsystems including Display, Soc, Touch and Wifi.
- Added functionalities to the Core Thermal Management driver to enable features like changes to processor power based on slider and camera states and hysteresis based fan speed control, used across Surface products.
- Implemented a system for bypassing thread separation in the System Manageability Framework Core driver to reduce the service time for critical inter driver communication.

JP Morgan Chase & Co.   **May 2019 – July 2019**
Software Developer Intern   *Bangalore*
- Developed a Machine Learning model to predict allocation of Breaks in reconciliation data.
- Analyzed the existing referral algorithm, to train a classifier on past allocation data achieving 91% accuracy.
- Deployed the model accessible as an API on the internal cloud.

Projects

RayTracer | *https://git.io/JZe94*
- Created a Rendering engine with Ray tracing capabilities from scratch in C++.
- Followed Object oriented methods to implement features like Anti-Aliasing, Defocus Blur, Reflection, Refraction and Attenuation. Used multi threading to reduce rendering time by 4-6X.

Lexycon - Local text search engine | *goo.gl/FDLcoi*
- Created a Python based Console Application to search documents in a folder for a Query string.
- Used Term Frequency-Inverse Document Frequency (Tf-Idf) algorithm to rank the search results in decreasing order of their Cosine Similarity with Stemmed Query string.

Smart Faculty portal | *goo.gl/dLNNCG*
- Created a web portal for faculty to manage their personal homepage.
- Implemented feature to scrape data from their existing homepage on the intranet and load it to a standardised template on signup. Added Email verification and Captcha for security.
- Used Django to for backend and HTML/CSS/Javascript for frontend.

C-compiler | *git.io/fjpjR*
- Developed a Compiler for C like language which supports arithmetic, logical and relational operations; various data types; conditional statements; looping and nesting.
- Used Flex for tokenizing the input program and Bison for syntax and semantic checking.

Technical Skills

Languages: Python, Java, C, C++
Machine Learning: Numpy, Pandas, Scikit-learn
Web Technologies/Frameworks: HTML/CSS, Django, Flask
Database management: SQL, MongoDB