

# AYUSH KUMAR

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## EDUCATION

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**B.Tech & M. Tech Dual Degree**, IIT Kharagpur, 7.65 July 2016 - May 2021  
Electronics & Electrical Communication Engineering (M.Tech in Visual Information & Embedded System)  
**AISSCE**, St. Michaels High School, 91.8% 2016  
**AISSE**, St. Dominic Savio's High School, 9.8 2014

## EXPERIENCE

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**Software Developer, ABB Global Industries & Services Pvt. Ltd.** Jul 2021 - Jun 2023

- Reduced release time by 60% using **Terraform**, Python, and Azure tools to automate infrastructure and deployment
- Utilized **Selenium library** and **Robot Framework** to automate tests resulting in 70% reduction in testing duration
- Worked as a **React** developer on the Asset Performance Management Suite (APM), which monitors assets, prescribes maintenance actions, and improves equipment utilization for process and utility industries.
- Contributed on development of APM Dashboard and SLD using react to analyze the behaviour of the real-time data
- Performed performance based improvement on testing result for qualifying APM prediction module for market release
- Developed an Email Notification Service using **.NET** and **React** within Genix APM Predict, providing timely alerts to users about asset health and status changes through detailed mail report

**Data Science Intern, L&T Infotech** May 2019 - July 2019

- Created a webpage using **Javascript** to facilitate the drawing and storing of handwritten digits as a training dataset and utilized **TensorFlow** to develop and train convolutional neural networks for the recognition handwritten digits
- Thoroughly evaluated the model's performance using diverse datasets, achieving a mean accuracy rate of 96%
- Implemented a chatbot utilizing TensorFlow, integrating RNN model with seq2seq architecture, softmax loss function, and multi-layer perceptron and tested it by tuning its hyperparameter for better performance beneficial for the team

## PROJECTS

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**De-noising Techniques in Image Processing** Sept 2020 - April 2021

- Explored and distinguished denoising methods in image processing like Sparse Representation, BM3D, and DnCNN
- Analyzed about DVS which captures fast-moving objects & ICM algorithm to optimize the model and remove noise
- Created denoising autoencoder with Conv2D, Maxpooling2D, Conv2Dtranspose, Binary Entropy, Adam Optimizer

**Emotion Detection Analysis using Keyboard** Jul 2019 – Nov 2019

- Gathered data from 100 students where they were prompted to type sentences, simultaneously inputting their emotions
- Extracted various features like typing speed, errors made for analyzing different emotions like sad, happy, neutral
- Authenticated the user using NN model with self-organizing maps, one-class **SVM** to achieve an accuracy of 78%

## SKILLS

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- **Proficient:** C++, Python | **Familiar:** Javascript, Django, Java, React, .NET, Angular, Terraform, Robot, Selenium
- **Software & Tools:** Adobe Photoshop, Adobe Premiere Pro, Cadence, Numpy, OpenCV, Github, ChatGPT
- **Relevant Courses:** Programming and Data Structures, Data Structures and Object Representation, Digital Electronic Circuits, Probability and Stochastic Processes, Matrix Algebra, Neural Networks and Applications, Artificial Intelligence, Digital Image Processing

## POSITION OF RESPONSIBILITIES

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**Sub-Editor, Awaaz, IIT KGP**

- Analyzed problems pertaining in the campus and took initiative to reach out to the administration and resolve them
- Worked on the frontend and was involved in regular updates of articles, interviews, and analysis on the website
- Involved in sponsorship and marketing team, handling online and offline local sponsors for newsletter and website

## ACHIEVEMENTS

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- Rewarded with rising star and Xtra milers award for outstanding performance in ABB for a duration of 2 years