Parinaya Chaturvedi

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ACADEMIC BACKGROUND

Degree	Institute	University/Board	Year Of Passing	CGPA/Percentage
B.Tech in Computer Science and Engineering (CSE)	IIT Mandi	IIT Mandi	2019	8.13 (until 4th Sem)
XII (Senior Secondary)	DPS Kalyanpur	CBSE	2015	93.6 %
X (Secondary)	DPS Kalyanpur	CBSE	2013	10

ACADEMIC PROJECTS

• **Book Scanner, Translator and Vocaliser**
(*Guide*: Prof. Hitesh Shrimali, Feb 2017-June 2017)
◦ *Software/Skills used* : Raspberry Pi Programming, API Integration, pico2wave open source software
◦ A non-destructive automatic page-turning scanner which generates pdf file using OCR software and an audiobook.

• **Hand Gesture Controlled Bot**
(*Guide*: Prof. Hitesh Shrimali , Mar 2016 - May 2016)
◦ *Software/Skills used* : Arduino Programming, XCTU software, Accelerometer calibration
◦ A bot whose motion is controlled by taking hand gestures as input to accelerometer.

• **Voice Controlled Pick and Place Bot** (Inter IIT Tech Meet)
(Dec 2015 - Jan 2016)
◦ *Software/Skills used* : EasyVR software, Arduino Programming
◦ A bot that picks and places a class of objects on voice commands.

INTERNSHIPS

- **Summer Internship in Centre for Development of Advanced Computing (CDAC), Pune (June ’17 - August ’17)**
    - Hands-on experience on *CUDA Programming*
    - Basic understanding of *Hadoop and MapReduce*, *MPI* and *OpenMP* Programming.

RESEARCH PROJECTS, PAPERS PUBLISHED AND PATENTS

- Working on *e-Teacher* MPPLAB Research Project under *Prof. Narendra Karmarkar*.

SKILLS

Languages : C, C++, Java, Python, LATEX
Database : MySQL
Tools : Eclipse, Android Studio, PyCharm, VSCode

RELEVANT COURSES

- **Completed Academic Courses :**
    - **Engineering Mathematics :** Real Analysis, Differential Equations, Limits, Continuity, Differentiability, Calculus, Integration
    - **Linear Algebra :** Matrices, Determinants, Eigen-vectors, Vector Spaces, Linear Transformations
    - **Mathematical Foundation for Computer Science :** Arithmetic Logic, Graph Theory, Combinatorics, Algebra, Finite State Automata
    - **Probability, Statistics and Random Variables :** Probability Laws, Expectation Values, Various Distribution Functions
    - **Applied Database Practicum** : DBMS, MySQL, Server side scripting
    - **Programming and Data Structure Practicum :** Basic data structures like stack and queue, Graph Algorithms
    - **Data Structure and Algorithms :** Object Oriented Programming, Abstract Data Types, Dictionaries, Hashing, Tree Data Structure, Heap
    - **Computer Organization :** Circuit Implementation for Arithmetic operations, Instruction Set Architecture (ISA), Memory, I/O Unit, Control Unit, NASM Assembler
    - **Special Topics in Algorithms :** Source to source transformation
    - **Design Practicum** : Interdisciplinary team project course to make a market product
- **Ongoing Academic Courses** :
    - **Pattern Recognition** : Bayes Decision Theory, Parametric and Non-Parametric Estimation methods, Sequential Pattern Recognition, Principal Component Analysis, Support Vector Machines, Artificial Neural Networks, etc.
    - **Artificial Intelligence** : State Space Search, Informed Search, Constraint Satisfaction, First Order Logic, Reasoning, Decision Trees, Probabilistic Learning, Natural Language Processing, etc.
    - **Introduction to Communicating Distributed Processing** : OS, Network Architecture, Process Management and Coordination, Packet Switching, Network Reliability and Distributed OS, etc.
- **Online Courses (Ongoing):**
    - **Coursera : Machine Learning (by Andrew Ng) :** Supervised Learning, Linear and Logistic Regression, Gradient Descent and Normal Equation, Regularisation, Multi-Class Classification, Neural Networks, Vector Machines, Unsupervised Learning, Anomaly Detection, Recommender Systems, Large Scale Machine Learning.
    - **Udacity : Machine Learning :** Decision Trees, Regression & Classification, Neural Networks, Instance Based Learning, Kernel Methods & SVMS, Clustering, Reinforcement Learning, etc.
    - **Udacity : Intro to Hadoop and MapReduce :** Big Data, HDFS and MapReduce, MapReduce Design Patterns.

POSITIONS OF RESPONSIBILITY

- Technical Event Coordinator at Exodia ’17
- Core Member of Robotronix Club, IIT Mandi

SCHOLARSHIPS, AWARDS & ACHIEVEMENTS

- Zonal Rank 1, State Rank 19 at *Regional Mathematical Olympiad(RMO), 2010*
- *AIR-2735* in JEE Advanced, 2015
- Won *3rd position* in Embedded Systems event at Inter IIT Tech Meet ’16.
- Won *2nd position* in Design Practicum ’17 at IIT Mandi.