Kautsya Kanu

Personal Data

EMAIL: kautsiitd@gmail.com

GITHUB: github.com/kautsiitd

CODECHEF: codechef.com/users/kauts_kanu

LINKEDIN: linkedin.com/in/kautsya-kanu-a0328293

PHONE: +91 7503758135

CODEFORCES: codeforces.com/profile/kautsiitd

CODECHEF DISCUSS: discuss.codechef.com/users/70101/kauts_kanu

STACK OVERFLOW: stackoverflow.com/users/4614493/kautsya-kanu

Education

2016 B.Tech. in PRODUCTION AND INDUSTRIAL, **IIT Delhi**, New Delhi | GPA: 7.84/10
Minor in Computer Science | GPA: 8.18/10

2012 CBSE, R.K.V.M, Gwalior | Percentage: 89.4%

2010 U P Board, D.D.S.V.M, Budaun | Percentage: 87.0%

Projects

MAY 2016
MAR 2016

UnSupervised Decomposition of Multi Author Document
Investigated the role of feature selection that captures the syntactic patterns specific to an author.
N-grams, POS tagging and PQ Grams based features were explored on the un-lexicalised PCFG to capture the distinct writing styles of the author.
Trained GMM using iterative EM algorithm for clustering after Segment Elicitation process using sklearn in python.

APR 2016

Named Entity Recognition for Real Estate
Used MALLET to train CRF Model over tokenised Real Estate data of Delhi NCR for Named Entity Recognition.
Used existing gazetteer related to locations, first and last names, POS tagging and Regular Expressions as feature of words.
Explored Word2Vec model using large unlabelled corpus and used embeddings as features to achieve high F score.

MAR 2016

Unsupervised and Supervised Hand Written Digit Recognition
I used kMeans with PCA and GMM using EM algorithm with PCA for Unsupervised Hand Written Digit Recognition.
I used Standard Back propagation Neural Network with various Non-linear activation functions in PCA space with help of PyBrain for Supervised Hand Written Digit Recognition.
I tried to use Convolutional Neural Network and Auto Encoders for better Supervised Hand Written Digit Recognition in python.

FEB 2016

Sentiment Mining and Domain Adaptation on Twitter dataset
Explored SVMs and Logistic Regression with L1 regularizer on sentiment vectors based on unigrams and bigrams comprising the classification space.
I used Lemmatization, Stemming, Removed Stop Words, Normalisation on words with intensely repeating letters and TFIDF based weighting.
Cross Validation was used for Training.

APR 2015
APR 2013

Development of Artificial Intelligent Virtual Game Player and Designed GUI
Implemented MiniMax and Alpha-Beta pruning with Heuristics and achieved 5-ply for Quoridor Game.
Conceptualized BOT with 3-ply and Designed GUI for n*n "TIC TAC TOE" and "2048" in python.

APR 2015

Bayesian Network Learning for Estimation of missing Data
Learnt the Bayes net on healthcare dataset of more than 11000 patient records over 8 modelled diseases.
Predicted using Expectation maximization algorithm and achieved less than 25% learning error from golden data.

JAN 2015

Multiple Sequence Alignment for DNA and Proteins
Implemented IDA*, DFSBnB for optimal solution and Clustal W with hill climbing for sub-optimal solution.
1st Runner-up in sub-optimal solution with less than 5% error from optimal solution among 142 students.

APR 2015	**Designed a Processor in Logisim for interpreting Simple RISC Assembly Language**
FEB 2015	**Formulated NP class problem into CNF SAT formula and solved using SAT Solver named MiniSat**
MAY 2016 JAN 2015	**3D Topology Generation and Simulation of Grinding Wheel, B Tech Thesis** Generated active grain profiles using Image processing and Texture mapping on topographical projections. Adapted Edge detection Canny algorithm, implemented Z Stack Method and estimated topology in MATLAB. Creating metal removal simulation for predicting kinematic interaction between grinding wheel and workpiece.

WORK EXPERIENCE

APRIL 2017 JUNE 2016	iOS Developer at HEADOUT Bangalore Participated in two internal 1day Hackathons, built Flappy Bird like game using Sprite Kit and Location based nearby products searching feature for app. Revamped code from basic swift files to Xibs Revamped code base from MVC to MVVM and then to Redux type implementation in Swift using ReSwift Included many new features of swift along with Swift 3 transition, including 3D touch, Image Parallex
JULY 2015 MAY 2015	Backend Developer at ZIMPLY New Delhi Added an extension for extracting images from Excel sheet, using VBA (Macros), decreased time by manifold Modified Image compression on EC2 Server using PIL and Cron, reduced downloading time on app efficiently Designed and Created Image Tagging, Chat-Box and modelled Database in Django Framework of python Proposed and Developed a Software with GUI in Tkinter python for Image operations, quartered effort and time Worked on Data compression algorithms Huffman, Arithmetic encodings, analyzed more than 10 Image formats and suggested 20% more optimal PJG format for Image compression compared to preceding format JPEG Extended PPO (Pre-Placement Offer) from organization for value added to company during internship

COMPETITIVE CODING

Jul 2017	Positioned among Top 10 contributors on CodeChef Discuss among 8000+ contributors
Sep 2015	Accomplished 58th Global Rank among 6000+ contestants in long contest, organized by CodeChef
Jun 2015	Positioned among Top 3 solvers in an optimization problem among 6000+ coders on CodeChef
Nov 2014	Two time Winner in IIT Delhi Coding Club organized by ACES-ACM, sponsored by HackerEarth
Oct 2014	Ranked 24th in IIT KGP online contest among 1600 worldwide participants, sponsored by HackerEarth Best ranked 5 Star(top 1% globally) among 1 Million coders on CodeChef Globally; max. rated BLUE (Expert) on CodeForces Among Top .15% contributors globally on codechef discuss, and counting

SCHOLASTIC ACHIEVEMENTS

2016	Minor Degree in Computer Science: Completed Minor Degree in Computer Science with GPA 8.18/10
2012	IIT Joint Entrance Examination: Secured 1329 (GE) rank among half million candidates
2012	All India Engineering Entrance Examination: Bagged 99.5 percentile among 1 million candidates
2010	U P Board Merit: District Topper and Second in Bareilly zone in High School Examination
2010	Honor Certificate: Awarded by Director, Science & Tech. Board UP for securing 100% marks in Maths

TECHNICAL SKILLS:

COURSES:	Intro. To Computer Science, Data Structure, Artificial Intelligence, Natural Language Processing, Machine Learning, Pattern Recognition, Analysis and Design of Algorithms, Computer Architecture, Operation Research, Econometric Methods, Digital Electronics, Signal and Systems
LANGUAGES:	C++, Python, Swift, MATLAB, C, JAVA, HTML, CSS, JS, mysql, VBA (macro), Verilog, Simple Risc, Latex, Django
OS & SOFTWARES:	MacOS, Ubuntu, Windows, Linux, Fedora, XCode, Logisim, Solidworks, AutoCAD, Creo, Ansys, CES