

KESHAV BANSAL

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EDUCATIONAL QUALIFICATIONS

| Year | Degree | Institution | CGPA/% |
|-------------------|-------------|--|-----------|
| July'17 – Present | B.Tech, CSE | Indian Institute of Technology, Kanpur | 10.0/10.0 |
| 2017 | CBSE – XII | Ahlcon Public School, New Delhi | 96.2% |
| 2015 | CBSE – X | Apeejay School, Noida | 10.0/10.0 |

PROJECTS

Code Mixed Sentiment Analysis keshav22bansal/BAKSA_IITK 🌐
Research Project under Prof. Ashutosh Modi Jan 2020 - May 2020

- Participated in Task 9 of SemEval-2020 workshop shared task for sentiment analysis in bilingual code-mixed tweets.
- Used self-attention mechanism to bolster the performance of prevalent CNN architecture by creating an ensemble model.
- Utilized multilingual XLM-Roberta Language Model (variant of Bert) for sub-word embeddings.
- Ranked 5th out of 62 teams for Hindi-English code-mixed tweets.

Log Analyser app SnehalRaj/LogAnalyser 🌐
Nutanix Cloud Init.io Hackathon March 2019

- Developed a web app to handle log messages generated by microservices distributed across multiple hosts.
- Included features like live debugging, searchable exception patterns, and statistical graphs.
- Declared the winning submission.

Dcipher keshav22bansal/Dcipher.hs 🌐
Course Project March 2019

- Developed system for automatic solution of substitution ciphers in Haskell.
- Operating on N-gram model of English characters and stochastic local search over the space of 10^{26} possible keys.

Money Manager App keshav22bansal/MoneyManager 🌐
Self Project Oct' 2019

- Developed a mobile app to create a ledger of monetary transactions between friends using ReactJS and React-Native.

HONOURS & AWARDS

- 2017-2020 **Academic Excellence Award**, for meritorious performance, IIT Kanpur
- 2018 **J.N. Kapur prize**, for the best second year student in Mathematics Courses, IIT Kanpur
- 2017 **All India Rank 782**, JEE Advanced
- 2017 **All India Rank 59**, JEE Main
- 2017 **All India Rank 440**, KVPY Scholarship

SKILLS

Programming Languages: Python, C++, C, Haskell, Bash

Libraries: PyTorch, Tensorflow, Keras, NLTK, Scikit-learn

Web: React, JavaScript, PHP, HTML, CSS

Utilities: Shell Utilities, Git, MongoDB, L^AT_EX, Vim

RELEVANT COURSES

| | | | |
|----------------------------------|----------------------------------|--------------------------------|-------------------------|
| Natural Language Processing | Introduction to Machine Learning | Advanced Algorithms | Computer Networks |
| Modern Cryptology | Compiler Design | Data Structures and Algorithms | Computer Graphics |
| Computer Organization | Discrete Mathematics | Probability & Statistics | Mathematical Logic (A*) |
| Computing Lab - 1 | Computing Lab - 2 | Compiler Design | Numerical Methods (A*) |
| Introduction to Programming (A*) | Linear Algebra (A*) | Theory of Computation | Real Analysis (A*) |

A*: Grade for exceptional performance, i: In progress

WORK EXPERIENCE

Microsoft *Hyderabad, India*
Software Development Intern May 2020 - Present

- Worked in the Azure Compute group to enhance the boot time of virtual machines.
- Analyzed the performance of prior algorithm on variety of OS images and came up with an algorithm to automatically select optimal parameters used in it.
- Made modifications to enhance the maximum throughput available for the VM leading to an improvement 20 % in the booting time.

Praktice.ai *Bengaluru, India*
Data Science Intern May 2019 - July 2019

- Emulated Google's suggested clip feature for answering medical queries, by showing a short video clip.
- Used named entity recognition, and TF-IDF weighted word2vec model vectors for a baseline model, which was improved further using fastText sentence embeddings.
- Analyzed medical data, and came up with an algorithm to suggest ailments given a set of symptoms the patient suffers.

Summer of Code *Kanpur, India*
Full Stack Development May 2018 - July 2018

- Developed Web and Android application allowing users to donate excess food to nearby food charities.
- Technologies used - PHP, SQL Server database, Google distance matrix API, Geolocation API, Send Grid API, Microsoft Azure Cloud.
- Awarded the second runner up title.

POSITIONS OF RESPONSIBILITY

Project Mentor *IIT Kanpur*
Association of Computing Activities 2020

- Conducted lectures on Probabilistic Machine Learning for 15 first year undergraduate students.

Company Coordinator at Student's Placement Office, IIT Kanpur, 2018-2019

MISCELLANEOUS

- Silver medalist in Bitgrit data science competition at Inter IIT Techmeet, 2019
- Ranked first in Auquan's Asia Open Data Science competition, 2020.
- 4 star rating on Codechef competitive programming platform.