

# NIKHIL KALA

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## EDUCATION

### Masters in Computer Science

*University of Utah*

May '23

*Salt Lake City, Utah*

### B.E in Computer Science (CGPA 8.23 with double honors)

*Panjab University*

May '19

*Chandigarh, India*

### Relevant Coursework

- Advanced Algorithms
- Data Mining
- Neural Networks
- Software Engineering
- Artificial Intelligence
- Deep Learning
- Operating Systems
- Advanced Databases

### Technical Skills

**Languages:** Python, C/C++, SQL, Java

**Frameworks/Libraries:** Robot, Keras, Selenium, TensorFlow, Openpyxl

**Software and Tools:** Celery, Jira, Git, Tkinter, Docker, Yaml, TensorBoard, MongoDB, RabbitMQ

### Experience

#### Graduate Teaching Assistant - Algorithms

*University of Utah*

Aug '21 – Present

*Salt Lake City, Utah*

- Teaching algorithms, complexities and formal proofs along with setting programming assignments and autograder.

#### Software Engineer I

*Deloitte*

Jun '19 – Jul '21

*Bangalore, India*

- Undertook development role for cloud-based mergers and acquisitions tool for clients, augmenting financial knowledge.
- Formulated REST APIs for calculations engine, decreasing the business user wait time from hours to minutes.
- Developed and implemented Automation framework based on self-proposed architecture, reducing time from 600 seconds to ~ 30 seconds per test case.
- Designed and Implemented Excel APIs for automated excel generation/parsing for various financial template settings.

#### Technical Analyst Trainee

*Deloitte*

Jan '19 – May '19

*Hyderabad, India*

- Created cron job for routine Mongo database cleanup which optimised the database by deleting unreferenced docs.
- Executable parsing tool made for Excel to Yaml/Json conversion for confidential data within the organisation.

#### Research Intern

*Design Innovation Center (DIC)*

Jun '18 – Jul '18

*Chandigarh, India*

- Explored machine learning and developed a model for the regressive analysis of walking data.

#### Software Engineering Intern

*Indian Space Research Organisation (ISRO)*

Jun '17 – Jul '17

*Dehradun, India*

- Researched and developed a web module that automatically archived satellite orbital path data.

### Selected Projects

#### Categorical Encode (Python package) | *Python, DataFrames, Pandas*

- [Published](#) python package that can be used to pre-process categorical data.

#### ReSort - Resume Sorter | *Python, Flask, NLTK, HTML, CSS*

- Developed resume ranker for HR department that classified and ranked resumes based upon various job domains.

#### Autonomous Issue Reporting System | *Python, Keras, Tensorflow, OpenCV, IoT*

- An IoT system developed for Ministry of Roadways during SIH National Finals (2018), this system provided real-time traffic violation reporting, vehicle detection and speed estimation along with number plate detection.

#### Secure Distribution of Restricted Documents | *Python, AES, HTML, Bootstrap*

- A web application developed for ISRO during SIH National Finals (2017), providing authorized access to confidential documents, encrypted files and had biometric authentication.

### Leadership / Extracurricular

- **Co-Founder/Administrator:** Co-Founder/Admin of the GitHub org, [The Algorithms](#). (200,000+ repository stars)
- **Publication:** “[Person Identification and Characterization from Gait Using Smartphone](#)” in 11<sup>th</sup> COMSNETS, 2019.
- **AWS Deepracer Pro:** Top 10% in reinforcement learning based, car race simulator league.
- **President:** President of the NGO, **Mitra** for 2017-18.