

# Abhishek Tomar

Artificial Intelligence Engineer



abtGIT



abtLI



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Pune, MH

## PROFESSIONAL SUMMARY

Innovative and adaptable software engineer, training, and education professional, possessing an expert-level information technology base. Excellent interpersonal and writing skills. Detailed Know-how of imparting technical knowledge in an easy to grasp manner.

## EXPERIENCE

### C-DAC [SPG-APPLIED AI GROUP (NLP R&D)] | SENIOR PROJECT ENGINEER [MODULE LEAD]

Dec 2022 – Current | Pune, Maharashtra

- Create an Inspiring Team Environment with an Open Communication Culture. Set clear team goals, Delegate tasks, and Set deadlines. Oversee the Day-to-Day operation and Monitor Team Performance. Employing various research and open source tools, techniques, and best practices to identify relevant information from Open Source.

### C-DAC [SPG-APPLIED AI GROUP (NLP R&D)] | PROJECT ENGINEER [MODULE LEAD]

Mar 2021 – Dec 2022 | Pune, Maharashtra

- Design and build Solution Architecture and Component Communication Flow. Design and build OSINT solutions for Homeland Security, using Big Data, Machine Learning, Graph Databases, and Elasticsearch. Design, author, and execute a well-engineered, maintainable, reliable, and bug-free pipeline for Sentiment Analysis for short and long sequence texts from various social media sources for English and mixed code Romanized Hindi languages. Design, author, and execute a well-engineered, maintainable, reliable, and bug-free module for Influencer Analytics for a given Twitter hashtag. Collected, validated, and prepared relevant and quality datasets. Created testing tool for quality assurance of prepared datasets.

### PINACA TECHNOLOGIES | SOFTWARE ENGINEER LEVEL I

July 2020 – Feb 2021 | Chennai

- Data Engineering. Data Extraction from text-based and image-based PDFs via OCR Techniques. Worked on end-to-end Knowledge Graph creation for unstructured text via NLP Techniques. Designed, authored, and executed a well-engineered, maintainable, reliable, and bug-free pipeline for document Document Classification. Collected, validated, and prepared relevant quality datasets.

### RCET | ASSISTANT PROFESSOR

July 2012 – October 2018 | Bhilai

- Mentored for Smart India Hackathon. Proactively participated in Theoretical as well as Hands-On camps to help budding engineers in solving real-life problems with the help of IT intervention. Designed and Revised Course Content. SPOC for Training and Placement activities for the Department of IT, [2013-2016]. Mentored students and staff to take seamless project development. Imparted extensive technical training and guidance as per the curriculum. Participated in inter-collegiate/national-level seminars and workshops.

## SKILLS

### PROGRAMMING

PROFICIENT: Python

EXPERIENCED: Java

FAMILIAR: R • C

### DATABASE

MongoDB • Oracle

### LIBRARIES/Frameworks

HuggingFace • Pandas • Numpy • Scikit-learn • PyTorch • Tensor-Flow • SpaCy • NLTK • MATLAB

### TOOLS/PLATFORMS

Git • Flask • Streamlit • Tableau • Docker

## EDUCATION

### C-DAC, ACTS

P.G. DIPLOMA IN ARTIFICIAL INTELLIGENCE

August 2019 - February 2020 | C-DAC, ACTS, Pune  
72.50%

### CSV TU

M.Tech, C.S.E. SPECIALIZATION IN COMPUTER TECHNOLOGY

August 2013 - December 2015 | RCET, Bhilai  
77.4% 8.49 CPI

### C-DAC, ACTS

P.G. DIPLOMA IN ADVANCE COMPUTING  
February 2010 - August 2010 | Sunbeam Institute of Information Technology, Pune  
60.74%

### CSV TU

B.E. IN INFORMATION TECHNOLOGY  
August 2005 - November 2009 | MPC CET, Bhilai  
71.67% 7.97 CPI

## ALOHA TECHNOLOGY | SOFTWARE ENGINEER

September 2010 – May 2011 | Pune

- Designed, authored, and executed well-engineered, maintainable, reliable, and bug-free source code with the primary technologies involved being Spring, VXML, and Silver Light. Designed and built interactive websites running on a database in the back-end. Design and implement reusable and customizable components as per business needs. Developed browser-based equipment and consumable tracking tool, scalable from small to medium-sized organizations. Document the solutions worked upon as part of Standard Deliverables to the Client.

## PROJECTS

### FAST FACE RECOGNITION | PYTHON, TENSOR-FLOW, ONNX INFERENCE, OPENCV

PG-Diploma, 120 Hrs, 2020

- This optimization problem focuses on achieving a faster frame rate in the existing pipeline via optimizing per frame, the intermediate process of face recognition, and tagging. The average frame rate achieved on videos and webcam is 15.8 and 10.6 fps respectively.

### BRAHMI SCRIPT CHARACTER RECOGNITION BASED ON HISTOGRAM ORIENTED GRADIENT FEATURE USING PRINCIPAL COMPONENT ANALYSIS |

MATLAB(IMAGE PROCESSING TOOLBOX)

M.Tech Thesis, 5 Months, 2015

- The purpose of this research is to spot and estimate early Brahmi Scripts (250–232 BCE) characters via analyzing estampage and handwritten Brahmi characters. Overall accuracy achieved for cell size [2 x 2], [4 x 4] and [8 x 8] is 80%, 90%, 25% respectively.

### AN AUTOMATIC FACE RECOGNITION SYSTEM FROM FRONTAL FACE IMAGES USING LOCAL BINARY PATTERN FEATURE SPACE AND K-NEAREST NEIGHBORS CLASSIFICATION | MATLAB(IMAGE PROCESSING TOOLBOX)

Guided an M.Tech Thesis, 5 months, 2016

- The novelty of the system is facial recognition via neutral as well as other emotions. The method uses the Viola-Jones face detection technique. R.O.I. is eyes and mouth. The recognition efficiency found is close to 97.3% for the 30 classes.

## PUBLICATIONS

### PRINCIPAL COMPONENT ANALYSIS BASED BRAHMI SCRIPT CHARACTER RECOGNITION SYSTEM | ABHISHEK TOMAR, MINU CHOUDHARY, AND AMIT YERPUDE

29th and 30th June 2015, International Conference in Advanced Research Applications in Engineering and Technology, Under, TEQIP Phase-II, Technically sponsored by IEEE, Organized by SRGI, RCET, Bhilai.

### ANCIENT INDIAN SCRIPTS IMAGE PRE-PROCESSING AND DIMENSIONALITY REDUCTION FOR FEATURE EXTRACTION AND CLASSIFICATION: A SURVEY |

ABHISHEK TOMAR, MINU CHOUDHARY, AND AMIT YERPUDE March 2015, International Journal of Computer Trends and Technology (IJCTT), Volume 21(Number 2).

### AN AUTOMATIC FACE RECOGNITION SYSTEM FROM FRONTAL FACE IMAGES USING LOCAL BINARY PATTERN FEATURE SPACE AND K-NEAREST NEIGHBORS CLASSIFICATION | DHIRAJ KUMAR, ABHISHEK TOMAR

June 2016, International Research Journal of Engineering and Technology (IRJET), Volume: 03 Issue: 06.

## CERTIFICATIONS

### RHCSA AND RHCE | 140-069-337

300/ 300 Scored in RHCSA Exam and 273/ 300 Scored in RHCE exam, 2014.

## SPECIALIZATIONS

### DEEP LEARNING 5 COURSES

offered by DEEPLARNING.AI

### MATHEMATICS FOR MACHINE LEARNING 3 COURSES offered by

IMPERIAL COLLEGE, LONDON

## AWARDS

### STAR OF THE QUARTER

RESEARCH AND DEVELOPMENT, SPG-AAI, C-DAC, APRIL TO JUNE 2022, Pune.

### 2ND RUNNER-UP, SMART INDIA HACKATHON MINISTRY OF

HOUSING AND URBAN AFFAIRS, ROLE: MENTOR, TEAM: REFORMTECH, MARCH-2018, RMK College, Chennai

### OUTSTANDING CONTRIBUTIONS AWARD |

2017, 2-5 YEARS OF SERVICE SEGMENT RCET, Bhilai.

### OUTSTANDING RESULT OF OVER 90% | ACADEMIC YEARS

2016-17, 2015-16 AND 2013-14, RCET-Bhilai.

## REFERENCES

**Mr. Saikrishna Budamgunta,**  
Founder and CEO, Saptang Labs and Pinaca Technologies

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**Dr. Krishnanjan Bhattacharjee,**  
Joint Director, Centre for Development of Advanced Computing

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