ATHARVA HUDLIKAR

Undergraduate Engineer

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CAREER OBJECTIVE

I am intent on exploring new fields and working on projects that drive me to learn more every day. With my experience working in the industry, through various internships and freelancing, and my knowledge in the field, I believe I can bring something more to the table at the company that I work in.

I want to learn more and apply my skills in making products and technology that benefits the society.

While working, I want to learn as much as I can: from my seniors and mentors, as well as my colleagues and juniors. I want to apply my current level of knowledge and use my passion for my work in the projects that I get a chance to work in. I would also like to display my experience managing and working in teams.

WORK EXPERIENCE

CO FOUNDER AND CV DEVELOPER
SmokeTrees Digital Pvt. Ltd.

- A digital solutions company founded by me and my roommates with over 15 projects received within the first 4 months of inception.

AI ENGINEER   Dec 2019-Dec 2020
MellonAI

- Worked on multiple CV projects including head pose estimation, deep facial recognition, and emotion detection.
- Worked on ML Prediction models with custom datasets, including data cleaning and organisation.
  Contact: Dr. Masood Ikram (MD): +917904794744

AI INTERN   May 2019-Jun 2019
Alpha ICT LLP

- In charge of making an Optical Character Recognizer (OCR) from scratch without using any preexisting OCR frameworks.
- In charge of developing an Automatic Number Plate Recognition System (ANPR) that worked on my OCR.
   Contact: Trilok Brahme (HR): +919503815181

HEAD OF EVENTS   Feb 2019-Feb 2020
roboVITics, the official robotics club of VIT

- Conducted various workshops for students in the field of robotics
- Worked on various projects in the fields of robotics and computer vision.
- Worked with the management team for organising various successful events.

MOTOR DRIVER CIRCUIT DESIGNER   Jul 2018-Jan 2020
Team Orcus

- Designed and built from scratch, a 120 lbs combat robot named 'Raven'
- Finished in top 8 internationally at RoboWars, TechFest'18, IIT Bombay.
- Finished 3rd in Kurukshetra RoboWars 2019, hosted at Anna University, Chennai.

PROJECTS

NavScape – An Indoor Navigation Paradigm   Sep 2020-Oct 2020
- NavScape is an ingenious Reinforcement Learning based algorithm that uses CCTV footage data in conjunction with existing methodologies to prepare public institutions to sustain in a post-covid world.
  Code: github.com/Mastermind0100/NavScape

Optical Character Recognizer   May 2019-Jun 2019
- An OCR system developed by me independently from scratch without using any existing OCR frameworks.
  Code: github.com/Mastermind0100/Optical-Character-Recognizer

Automatic Number Plate Recognition System   May 2019-Jun 2019
- An automated system that detects cars driving into the parking lot and registering the time stamp of the car, along with the detected number plate which is run through the OCR.
  Code: github.com/Mastermind0100/Automatic-Number-Plate-Recognition-System

Smart Power Allocation using Reinforced Clusters   Mar 2019-Present
- Developed and improved in various hackatons, this project focuses on utilizing data from smart power meters and providing data analysis, prediction and possibly a new payment system.
  Code: github.com/smoke-trees/sparc

Sudoku Solver Telegram Bot   Jan 2020-Feb 2020
- This bot takes the image of a Sudoku, solves it and returns the solution of the Sudoku in the form of a text reply.
  Code: github.com/Mastermind0100/Sudoku_Vision

Proximity Marketing System for Retail Stores   March 2020
- Due to rise of online shopping portals, retail stores have been losing their hold on the market. We came up with a project in a hackathon that involved various solutions to allow retail stores to provide customized advertising and proximity marketing solutions to their customers.

Raven – Team Orcus   May 2018-May 2019
- As a part of the team, we developed a combat robot (120 lbs) from scratch including the mechanical design, electrical circuits and the programming behind it all. We placed in top 8 internationally in IITB Robowars 2018, knocking out the world champions and 3rd in Anna University's Kurukshetra Robowars 2019.

TECHNICAL SKILLS

PROGRAMMING LANGUAGES - Python, C/C++, Java, Assembly, Verilog, MATLAB

FRAMEWORKS USED – Tensorflow, Keras, OpenCV

MICROCONTROLLERS - Arduino, Raspberry Pi, 8051 Assembler, Nexys4 DDR Artix-7 FPGA, NVIDIA Jetson Nano

EDUCATION

B.Tech in Electrical and Electronics Engineering   Jul 2017-Present
Vellore Institute of Technology, Vellore
CGPA (7 semesters): 8.65

Class 12 (CBSE)   Mar 2016-Mar 2017
Jaipuriar School, Sanpada
Board Percentage: 94.8%

Class 10 (ICSE)   Mar 2014-Mar2015
St. Mary's ICSE School, Koparkhairane
Board Percentage: 95.67% (overall)

RESEARCH PUBLICATIONS

- Unnikrishnan Menon, Anirudh Rajiv Menon and Atharva Hudlikar, "A Novel Chaotic System for Text Encryption Optimized with Genetic Algorithm" International Journal of Advanced Computer Science and Applications (IJACSA), 11(10), 2020. DOI:10.14569/IJACSA.2020.0111005

- Menon, U., Hudlikar, A., and Panda, D. (2020a). Scytale - An Evolutionary Cryptosystem. International Journal of Computer Science and Network, 9(4):153–159. arXiv:2008.05290

ACHIEVEMENTS

- **Winner of Urban Innovation Track at HackMIT**   Sep 2020
- **Winner of HackerTech**   Dec 2019
- **Winner of VIT Hack**   Sep 2019
- **Runner-up of Code2Create**   Mar 2019
- **Runner-up of ISTE Technica Hack**   Feb 2019

WORKSHOPS CONDUCTED

- Image Processing Workshop conducted independently as a part of Biotronics 3.0 by Alpha Bio Cell of VIT. I went through basics of Image Processing, using OpenCV framework on Python for various image processing techniques and doing basic object detection via contours.
- Basics of Robotics Workshop as a part of CSR for Saint-Gobain India. Conducted with a teammate, we introduced robotics as a fun new idea to students from classes 7 to 9, by showing basic bots.
- Robotics Workshop conducted for students of classes 9 to 11 at Gundecha Education Academy, Mumbai, in a team of 4. We built a Line Following bot in their presence to show them the process of building and troubleshooting bots.
- Hands On Robotics Workshop as a part of roboVITics, the robotics club of VIT, where we took a 2 day session teaching enthusiasts everything one needs to know to begin their journey in the field of robotics and helped them build their own robots.

CERTIFICATIONS

- Computer Vision Basics – Issued by: Coursera, Buffalo University, The State of New York University
- Computer Vision - Object Detection with OpenCV and Python – Issued by: Coursera Project Network
- Essentials of Machine Learning – Issued by: VIT Online Learning Institute
- Natural Language Processing with Classification and Vector Spaces – Issued by: Deeplearning.AI