NATIONAL INSTITUTE OF TECHNOLOGY, HAMIRPUR H.P.
AKSHAY SINGH || 15MI432

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ACADEMIC RECORD

Year	Degree	Institute	University/Board	CGPA/Marks
2015-Present	Dual Degree (Bachelors and Masters) in Electronics & Communication Engineering	NIT HAMIRPUR, H.P.	AICTE	8.22(till 8th semester)
2014	All India Senior Secondary Certificate Examination	Lucknow Public School, Lucknow U.P.	CBSE	92.2 %
2012	All India Senior Secondary Examination	Lucknow Public School, Rae Bareli U.P.	CBSE	10.0

EXPERIENCE

SpringRole India Private Limited | Software Development Intern (May 2019 – July 2019)

- **Spring Verify:** Worked on Optical Character Recognition to extract data accurately from PAN, Aadhar, DL using Google Vision Api and aws detect text and storing it in CSV file, performed face extraction and face comparison using aws rekognition and deployed it on google cloud platform.

Technologies & Tools: Python, docker, aws, Flask, google cloud platform, postman.

Obsessory Online Services Pvt Ltd | Software Development Intern (May 2018- July 2018)

- **Blockchain Technology:** The work was on the project of Blockchain, ICO Whitelist process, Cryptocurrency wallets creation, ERC20 dapp token creation on Ethereum using Solidity and JavaScript programming languages.
- **KYC System Development:** Worked on building a prototype of KYC system using Python and Machine learning and to verify identity, documents of user like passport, driving license by use of libraries like face recognition, passport eye, tesseract, DLNvalidation, Flask etc.

Technologies & Tools: Python, JavaScript, Solidity, Postman.

Aliyance Mechatronics | Robotics Intern (June 2017- July 2017)

- **Automated Crab:** To detect, follow the path of ping pong ball and perform localization of objects of room using Automated Crab. The work was on object detection, ball following using crab designed by 3-D printing, localization of various objects of room by OV7670 camera module.

Technologies & Tools: Python, 3-D printer, Solid works, Arduino Uno, Proteus, OV7670 camera module.

Bharat Sanchar Nigam Limited (RTTC, Lucknow) (June 2016 –July 2016)

- The training was on various communication technologies used in Telecom networks, Introduction to intelligent networks, latest switches, mobile communication (both GSM and CDMA), Broadband Technology, PCM principles. Brief overview of generation of mobile communication systems (2G, 3G, 4G).

SKILLS

Programming: C, Python, Java Script, Solidity, PHP, Visual Basic 6.0.   **Database:** MySQL
Platforms: Windows, Linux.
Software: PSPICE, Proteus, Photoshop CS-6, MATLAB.
Analytical Skills: Numeracy, Problem-solving, Decision making, Project Management skills, Positiveness, Adaptability and Tenacity.
Prototyping Platform: Arduino, Arm Cortex M0, Raspberry pi3 ,8085 microprocessor board.

ACADEMIC PROJECTS

<u>Smart E-System for Crop Protection from Monkey</u> (September 2018 – April 2019)

- Description: To detect animals like monkeys, langoors by taking pictures from night vision camera and using Machine learning model trained by dataset of animals using TensorFlow, dlib, Yolo net and to emit sound waves of 45 to 60 kHz to repel them from field.

  Technologies & Tools: Raspberry pi3, Python, pi camera, TensorFlow, piezoelectric tweeter.

<u>Automatic Irrigation System:</u> (Dec. 2016- Jan. 2017)

- Description: The system uses HC-SR04 ultrasonic sensor to detect the level of water in the field and to transmit the signal from one microcontroller to another through GSM module. Arduino Uno is used as development board; relay circuit is used to power ON/OFF the water pumping system and data is sent to android phone.

<u>Home Automation:</u> (Aug. 2016 to Sept. 2016)

- Description: Controlling / accessing home appliances from all across the world using MOBILE PHONE CALLING SYSTEM. Made use of DTMF (dual tone multiple frequency), 9170B IC. Arduino based home automation using smart phone android application.

MAJOR/RELEVANT COURSES/WORKSHOPS /INTEREST AREAS

<u>Key Courses:</u> Digital Electronics, Linear Integrated Circuits, Control Systems, Switching Circuits and Finite Automata Theory, Microprocessor 8085, Data Communication & Computer Networks.

<u>Additional Courses:</u> Programming in C, Data Structures and Algorithms, Machine Learning A-Z, ERC20 token creation on Ethereum, Image Processing.

<u>Workshops:</u> Ethical Hacking, Embedded Systems (AVR microcontroller)

<u>Interest Areas:</u> Machine Learning, Blockchain, Internet of Things, Embedded Systems.

AWARDS & APPRECIATIONS

- Got selected for National Aeromodelling workshop organized by BOEING at IIT Kanpur in year 2017.
- Successfully organized the ISTE Annual Students' Convention- Udbhava 2016 as team coordinator at NIT Hamirpur
- Second rank in Rae Bareli district in National Science Olympiad in 2011.

CO-CURRICULARS

- **Training and Placement Representative NIT Hamirpur.**
- **Python Instructor** at **Skool Of Code**. (April 2019- Present)
- **Finance Joint Secretary** of Indian Society for Technical Education-NIT Hamirpur Students' Chapter. (August 2019- May 2019)
- **Sponsorship Coordinator** of Team Finance and Treasury "**NIMBUS**"-Annual Technical festival of NIT Hamirpur. (August 2018 – May 2018)
- **Secretary** of "**Hindi Club**" literary team of NIT Hamirpur. (August 2019- May 2019)
- Campus Ambassador of IIT Mandi's Annual Technical festival. (August 2016 - May 2017)