

# Bhanu Pratap Singh Thakur

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## Lead System Engineer

### SUMMARY

9.5 years experienced, meticulous & result-oriented System Engineer armed with a proven track record of analytical acumen in deploying complex machine learning and statistical modeling algorithms/techniques for identifying patterns and extracting valuable insights. Possesses diverse experience in planning & executing multiple projects and liaising with the key stakeholders to identify & resolve business problem statement and deliver excellent results.

### EDUCATION

<b>MSc in Data Science</b>	Jun '21 - Present
<b>Liverpool John Moores University</b>	Liverpool, UK
• Ongoing	
<b>Post Graduation Certification in Data Science</b>	Jun '21 - Present
<b>IIIT Bangalore &amp; upGrad</b>	Bengaluru, IN
• CGPA: 3.37/4	
<b>Bachelor of Technology in Avionics Engineering</b>	Aug '08 - May '12
<b>University of Petroleum and Energy Studies</b>	Dehradun, IN
• Secured 78%	

### PROFESSIONAL EXPERIENCE

<b>System Engineer</b>	Jul '18 - Present
<b>Boeing India Private Limited</b>	Bengaluru, IN

*An American multinational corporation that designs, manufactures, and sells airplanes, rotorcraft, rockets, satellites, telecommunications equipment, and missiles worldwide. The company also provides leasing and product support services.*

#### Key Projects

- Conceptualized and implemented **Data Acquisition & Processing System** | Project Lead | Ex Product Owner
- Compiled microservices based architecture to **accelerate cloud migration** for an legacy application already in production
- Formulated probabilistic modeling based solution to **identify root cause for part failure** | Predict Part Failure in Advance

#### Job Role Responsibilities

- Understand the **business use cases** from internal customers and convert them into a **well-defined problem statement**
- Identify and implement use cases which might help the organization business development to interpret results and produce actionable business insights that could lead to measurable business and consumer experience performance improvements
- Develop algorithms and predictive models to drive Insights and business values from data
- Perform trade-off studies on emerging technologies (confined to ML/AI) | Convert POC's to MVPs

#### Analytics & Machine Learning

- Experience in building applications with Machine Learning and Deep Learning (ANN, CNN, RNN, LSTM, GAN)
- Analyze data sets to provide insights to experts from various domains
- Building statistical modeling and applying various machine learning techniques
- Use of analytics for automation and enhancement in the field of aerospace industry eg. - predictive maintenance using ML
- Data Understanding and process formation from internal customers
- Extensive hands-on with regression and classification techniques
- Building baseline models for the requirements with necessary data preparation

#### Key Achievements

- 4 ideas filed with USPTO | Secret Sauce ML/AI based Algorithms
- Excelled in moving 2 problem statements from ideation stage to production ready stage
- Delivered Tech Talk | Boeing India Connect Talk Platform
- Provided training on Python and Distributed System Architecture to my fellow colleagues

Wipro Limited is an Indian multinational corporation that provides information technology, consulting and business process services.

Key Projects

- Projected **Data Analytics** related Use/Business Cases | Conduct Feasibility & Applicability Trade-off Studies
- Streamlined Internet of Thing (IoT) based Remote Access Gateway Design & Development | Remote Access Module Lead

Tech Mahindra is an Indian multinational information technology services and consulting company.

Key Projects

- Designed & Developed **Smart IoT Gateway** | Cross Platform Application | Window, Linus, Android
- Engineered various POCs around **Internet of Things (IoT)** | Performed Edge Analytics
- Spearheaded NextGen **Unmanned Aerial Vehicle (UAV)** System Design & Development

KEY DATA SCIENCE PROJECTS

- **Case Studies | Academic Projects**
  - Bike Sharing Case Study| Linear Regression Based
  - Lead Scoring Case Study | Logistic Regression Based
  - House Price Prediction Case Study | Advance Regression (Ridge, Lasso, Polynomial)
  - Customer Churn Case Study | Time Series Forecasting
  - Cancer Detection Case Study | CNN
  - Gesture Recognition Case Study | RNN , LSTM, GRU
- **Custom Object Detection using TFOD 2.0 | Tech Stack: Python**
  - Objective: Use Transfer Learning to create custom object detection model
  - [bhanu-code-repo/custom-object-detection-TFOD-2: Use Transfer Learning to create custom object detection model \(github.com\)](#)
- **Image Captioning | Tech Stack: Python (Keras)**
  - Objective: Implement an image captioning model using a CNN and a Transformer
  - [computer-vision-using-keras/image\\_captioning.ipynb at main · bpst-apps/computer-vision-using-keras \(github.com\)](#)
- **Web Scrapper Dashboard | Tech Stack: Python (Flask + Jinja2 Template)**
  - Objective: Implement web scrapper to scrape [Affordable & Competent Courses](#) | [iNeuron.ai](#) website
  - [Data Scrapper - Login \(app-web-scrapper.herokuapp.com\)](#)

KEY SKILLS

- Machine Learning Methodologies • Optimization Techniques • Text Mining • Data Mining & Analytics
- Data Visualization Techniques • Quantitative Analysis • Data Manipulation • Secondary Data Sources
- Predictive & Statistical Modelling • Sentiment Analysis • Data Collection Systems • Data Analysis
- Data Visualization • Project Delivery • Predictive Modelling & Analytics • Programming • Process Improvement
- Team Coordination & Leadership • Debugging

TECHNICAL SKILLS

**Big Data Ecosystem**, Hadoop MR, NoSQL, Spark, Kafka, Docker

**Languages:** Python, Java, HTML, JavaScript, R, C, C++, React

**Cloud Computing:** AWS, EC2, S3, EMR, Azure, Heroku

**Machine/Deep Learning:** ANN, CNN, RNN, LSTM, GRU, GAN

**Database:** MySQL, MongoDB, Neo4J, Redis, Teradata, Cassandra

**Statistics/ML:** Linear/Logistic Regression, Ensemble Trees, Gradient Boosted Trees

Technical Proficiency

Python | Expert | 7+ Years

Machine Learning | Expert | 3+ Yrs

Deep Learning | Expert | 2+ Yrs

NLP | Intermediate | 1 Yrs

Computer Vision | Expert | 2 Yrs  
Data Visualization | Expert | 3+ Yrs  
Big Data | Intermediate | 1+ Yrs  
Agile, SCRUM | Expert | 8+ Yrs

### Tools & Libraries

- Tools
  - PyCharm | VS Code | Jupyter Notebook | Atom (Hydrogen Plugin) | Git | JIRA | Tableau
- Libraries
  - Numpy | Pandas | PyTorch | Keras | Scipy | Scikit-learn | Seaborn | Matplotlib | Stats Models | Tensorflow | NLTK | BeautifulSoup | Open CV
- Hardware | Evaluation Boards
  - NVIDIA Jetson | Raspberry Pi 3 | Arduino