ANURADHA PARAKALE
Pune, India 411028 | Cell: +918088991266
Email | LinkedIn | GitHub | Tableau Public

OBJECTIVE

As a seasoned professional with over 6 years of experience in Data Science and Engineering Research and Development, I bring a deep understanding of various techniques and theories that can be applied in different areas of work. My goal is to leverage my skills in the field of Data Science, and Engineering Research and Development related fields to continuously challenge myself and promote organizational growth through personal growth and mutual benefit. I am eager to bring my passion and dedication to the data science team and learn and grow alongside my colleagues.

TECHNICAL SKILLS

- Machine Learning: scikit-learn, Supervised and Unsupervised Learning, Random Forest, Isolation Forest, and Clustering
- Deep Learning: Pytorch, TensorFlow, Keras, ANN, CNN, RNN, LSTM, and GRU
- Generative AI: LLM, Transformer, GPT, BERT Transfer learning, LLM Fine-Tuning, RAG, PEFT, LoRa, Qlora, LlamaIndex2, LangChain, Chainlit, OpenAI, Gemini Pro, Prompt Engineering, LLMops, and Hugging Face
- Natural Language Processing (NLP): Word embedding, Text Classification, Translation, Summarization, Text Generation, and Sentiment Analysis
- Programming Language: Python
- Data Analysis: Exploratory Data Analysis (EDA), Feature Engineering, and Data Cleaning
- Database: VectorDB, Pinecone, CromaDB, and S3
- Software Tools: Visual Studio Code, PyCharm, Jupyter Notebook, Google Colab and Amazon SageMaker
- Visualization: Tableau and Kibana
- Cloud: AWS
- Operating System: Windows, and Linux
- Other Tools: Elasticsearch, slack, Jira, GIT, PowerPoint, Word, and MS Excel

EXPERIENCE

Machine Learning Engineer | Tao Digital | Hyderabad, India March 2023 - Current
Skills: EDA · Machine Learning · Deep Learning · Python · AWS · Advance Excel

- Developed and deployed AI-based threat detection systems, utilizing machine learning algorithms, natural language processing, and data mining techniques.
- Implemented advanced anomaly detection algorithms to identify patterns, anomalies, and indicators of compromise (IOCs) in security event logs, resulting in enhanced threat mitigation.
- Conducted exploratory data analysis to identify trends and patterns, contributing to the development of more accurate threat detection models like user behavior, application behavior, identity, location, and endpoint detection using various log source such as HAProxy, Firewall, Domain Cotroller, Trellix, and Zeek.
- Collaborated with cybersecurity experts to continuously refine and enhance threat detection algorithms based on real-world threat scenarios.

Senior Process Engineer | Topband | Pune, India October 2022 - March 2023
SMT Manufacturing: Electronics
Skills: EDA · Design failure mode and effect analysis · Value engineering · Advanced Excel · PFMEA · Lean Manufacturing

- Exploratory data analysis, Value Engineering, and Value Analysis, and for Benchmarking and Target setting
- Establishing New Product Introduction (NPI) testing flow & model monitoring.
- Verifying the PFMEA and Defining testing flow according to that risk factor for each NPI.
- Experienced in Smartphone motherboard testing and calibration.
- Provide LOB, UPH & UPPH Std. according to plan.
- Deployment of the new design into the production environment.
- Fixing any design issues arising out of testing by using problem solving techniques like Root cause analysis, Fishbone, and 5-why etc.

Process and NPI Engineer Leader | Pacific Cyber Technology | Pune, India July 2018 - March 2022
SMT Manufacturing | General Assembly
Skills: SMT Manufacturing System · Design failure mode and effect analysis · Continuous Improvement · RCA · NPI · PFMEA

- Gather and analyze data from the production organization or through observation for problem solving or identification of improvement opportunities.
- Working as a Process Engineer for the successful implementation of the SMT manufacturing projects.
- Good Knowledge about 5S, ESD, MSL, MSD Component verification, IPC, 7QC tools, 8D, Countermeasure, CAPA,5M, 5 Why Analysis, Kaizen, PDCA Cycle, NPI Report.
- Co-ordination or Kick-off Meeting with Supplier, Development, Tooling and Quality team for Line Trial / FAI / Pre-MP / MP of New Development for smooth operation.
- Good Knowledge about complete Mfg. Quality Process control responsibility including SMT, MI WSM Process, Testing and Packing etc. Review PCBA Gerber with Stencil Gerber in CAD Software.
- Verifying Drawing, BOM, PCBA Layout, Schematic Diagram and Actual Part for FAI, Submission (First Article Inspection).

- Can be able to implement any ECN or PCN change on-line very efficiently. Verifying the PFMEA and Defining Process flow according to that risk factor for each NPI.
- Modification of PCBA DIP, SMT & Test fixture as per risk evaluation at the time of NPI. Providing all consumables standards (Consumable BOM) for every new project.
- Achieve production schedules and product requirements by applying lean manufacturing/synchronous principles with emphasis on variation reduction, control costs, and achieve productivity improvements.
- Demonstrated understanding of COMMWIP (Correction, Overproduction, Material Movement, Motion, Waiting, Inventory, Processing) or Lean Six Sigma– Waste Elimination.
- Advanced understanding of manufacturing and assembly processes.

EDUCATION

Mastering **Generative AI** with OpenAI, LangChain, and LlamaIndex V2 — January 2024 – October 2024
iNeuron

Master Program: Data Science — March 2022 - February 2023
Simplilearn

Bachelor of Engineering: Electronics and Communication Engineering - 76% — July 2013 - Dec 2017
Visvesvaraya Technological University (VTU), India

CERTIFICATIONS

Offered by Stanford University, DeepLearning.AI, and Amazon Web Services

1. Mathematics for Machine Learning and Data Science Specialization
2. Machine Learning Specialization
3. Deep Learning Specialization
4. Process Failure Modes and Effects Analysis | Pacific Cyber Technology

PROJECTS

1. **User Behavior**
   - Environment: Machine Learning, Python, NumPy, Pandas, Scikit-learn, and Kibana
   - Designed and incorporated a cutting-edge Random Forest model to detect anomalies in user behavior, achieving a 99% accuracy post-training. Developed a structured and adaptable Python codebase for the project, prioritizing ease of maintenance and scalability.

2. **HAProxy Application Behavior**
   - Environment: Python, Machine Learning, Statistics, NumPy, Pandas, and Scikit-learn
   - Implemented the Random Forest algorithm to identify anomalies in application behavior, specifically targeting sudden spikes in the network and data unusual download activity. Additionally, analyzed user specific and networkwide interactions with applications to pinpoint abnormal behavior, enhancing overall network security.

3. **Zeek Nmap scan**
   - Environment: Python, Machine Learning, Statistics, NumPy, Pandas, and Scikit-learn
   - Identified and analyzed diverse forms of network scans, encompassing targeted Nmap scans directed at specific hosts and ports, alongside patterns of connections originating from single sources to multiple systems. Leveraging an unsupervised isolation forest model, effectively detected these activities, playing a pivotal role in identifying potential security risks and safeguarding the network against malicious intrusions.

PERSONAL DETAILS

Date of Birth: 24 February 1996
Gender: Female
Marital status: Single

I hereby certify that all the above information is true and correct to the best of my knowledge and belief.

Place: Pune
Date: 02 May 2024

Yours sincerely
Anuradha Parakale