VIPUL V SURESH

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WORK EXPERIENCE

Northeastern University | Graduate Teaching Assistant | Boston – USA   **Sep 2021 – Dec 2021**
- Mentor 29 Students with coursework, assignments, and project execution for IE7615 Neural Networks & Deep Learning

Instaversal | AI Product Development co-op | San Diego – USA (Remote)   **Feb 2021 - Aug 2021**
- Conducted user research to identify pain points in manufacturing processes, created MRD to solve quality and performance issues
- Designed Azure data pipeline for ML implementation using NoSQL with annotated Injection molding & CNC process-level features
- Created PowerBI dashboards to monitor Injection Molding operation KPIs such as defect rate, throughput, scrap rate, etc.,
- Conceptualized and developed a proprietary Industrial IoT gateway prototype at 35% of the cost compared to existing vendors
- Structured NodeJS configs to provision new industrial sensors to transmit telemetry data from the edge to cloud services

Amazon | Senior Investigations Specialist (Level 4) | Bangalore – India   **Oct 2018 - Jun 2019**
- Served as SME on auto-annotation software development sprints aimed at manual investigation defect mitigation resulting in a reduction of case handling time by 12%
- Mentored three teams of 12 newly hired investigators to improve performance metrics, paving the way towards zero defects
- Oversaw resource allocation between digital, gift card (2-hour SLA) & retail queue (12-hour SLA) to maintain on-time order approval

Amazon | Transaction Risk Investigator (Level 3) | Bangalore – India   **Dec 2016 - Sep 2018**
- Analyzed over 70k buyer accounts to identify payment fraud using pattern analysis resulting in overall savings of $300,000
- Executed root cause analysis deep dives and reported Fraud AI System miss of $60,000 to the Risk Mining Team
- Served as SME on SOP amendment, QA, & KPI improvement drives with a reduction in process level KPI of 250 basis points

Schneider Electric | Process Improvement Intern | Bangalore – India   **Dec 2014 - Jan 2015**
- Diagnosed material flow bottlenecks, proposed changes to the Value Stream Map resulting in increased daily output by 4%
- Conducted work-study & ergonomics assessment to advocate scalable changes with a projected increase in Takt time by 17%

LEADERSHIP EXPERIENCE

- **Co-founder & Vice-President | Lean Endeavors club, Northeastern University**   **Apr 2020 – Nov 2021**
  Organized six Lean workshops and webinars from eminent industry leaders with 110+ student members from NEU
- **President & Student Coordinator | Student Council, NIE**   **May 2015 - May 2016**
  Led a team of 31 leaders across 14 committees to organize a three-day techno-cultural event with a footfall of 8000+ attendees

ACADEMIC PROJECTS

- **Neural Network & Deep Learning: Thermal Image Segmentation**   **Sep 2020 – Dec 2020**
  Achieved a binary cross-entropy loss of 0.118 against a benchmark of 0.0172, for segmentation of IR images collected from the university's ADAS dataset trained on the UNet algorithm using Jupyter Notebook
- **Database Management for Analytics: MedsDeliver Database**   **Sep 2021 – Dec 2021**
  Implementation of SQL and NoSQL databases along with connections to front-end applications such as Python, R, and Tableau
- **Digital Product Development: OneSchool App**   **Sep 2020 – Dec 2020**
  Led team of four to develop a prototype for a centralized educational platform with a potential market worth $40M, creating personas for three user segments, drafting PRD and MRD documents, and UI/UX mockups using Balsamiq
- **Data Mining: Lit Model**   **Sep 2019 – Dec 2019**
  Achieved 77.5% accuracy in the binary classification of fire incidents using Logistic regression trained on the Boston fire dataset
- **Project Management: The Monday**   **Jan 2020 – April 2020**
  Drafted project organization and implementation plan (IDEF0 Model, WBS, Gantt chart, PERT, RACI, and stakeholder matrix) for an AI/ML backed smart home assistant product development at a target budget of $2.0 Million

SKILLS

- **Programming:** Python, MATLAB, R, C, JavaScript, NodeJS, MySQL, MongoDB, Cypher, SQLite, Macros, VBA, Git, HDFS, Spark
- **Tools:** Tableau, PowerBI, MS office suite (Excel, Project.,), Lucidchart, Azure, VS Code, JIRA, SolidWorks, Catia, Balsamiq
- **Concepts**: AI/ML, DOE, DFM, IIoT, Lean, Agile, Kanban, Waterfall, Scrum, Six Sigma, Kaizen, NPI, PLM, SDLC, MapReduce

EDUCATION

Master of Science, Industrial Engineering, Northeastern University, Boston, USA   **Sep 2019 - Dec 2021**
Courses: Product/Project Management, Digital Product Development, Data Mining, Neural Networks & Deep Learning   **GPA: 3.71/4**

Bachelor of Engineering, Industrial & Production Engineering, NIE, Mysuru, India   **Sep 2012 - May 2016**
Extra-curricular: Member of SAE Baja, Captain of Swim and Archery Team   **GPA: 8.67/10**