# Abhishek Raj Mishra

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#### EDUCATION

San Diego State University

M.S - Computer Engineering; GPA: 3.40

Aug 2025 - May 2027

Jain University, Bengaluru

B. Tech - Information Science & Engineering; GPA: 8.93 (WES: 3.9)

Aug 2020 - Jun 2024

#### **PROJECTS**

- Explainable Mental Health Chatbot: AI-powered mental health system using explainable NLP models for empathetic conversations. Crisis detection module for suicide ideation with verified helpline resources. SHAP-based explanations for visualizing emotional risk predictions. FastAPI backend and Streamlit frontend with mood tracking dashboards and real-time visualizations. Tech: Python, FastAPI, Streamlit, Hugging Face Transformers, SHAP
- Neural Network Classifier: Feedforward neural network from scratch in MATLAB for Pima Indians Diabetes dataset. Custom modules (loadData.m, featureNormalize.m, trainNN.m, predict.m, evaluateAccuracy.m, sigmoid.m) for data preprocessing, normalization, forward propagation, backpropagation, and evaluation. Network configurations (5–20 hidden units) with 76.09% test accuracy and visualized cost convergence. Comparison against logistic regression with superior nonlinear modeling capability. Tech: MATLAB
- DHCP Client—Server Configuration: DHCP client—server model using Cisco Packet Tracer. DHCP server, switch, multiple PCs for dynamic IP assignment within local subnet. Connectivity verification with ICMP ping tests and real-time IP lease allocation. Tech: Cisco Packet Tracer, DHCP, TCP/IP, ICMP

### EXPERIENCE

### Smokin 6r Inc. (Franchise Partner of Boost Mobile)

Hybrid, USA

IT Specialist

Mar 2022 - Present

- Network Infrastructure Management: Wireless network infrastructure with high availability, secure connectivity, minimal downtime across departments.
- Server & System Maintenance: Servers, workstations, network devices with proactive updates and monitoring; system uptime increase by 30%.
- Cloud Integration: Cloud integrations for applications using AWS Lambda and Google Cloud Platform with higher reliability and lower latency.
- Issue Resolution & Performance Tuning: Critical software and network issue resolution under tight deadlines with performance gains across 10+ enterprise applications.
- Technical Support & Troubleshooting: IT support for hardware, software, network systems with 98% issue resolution rate through timely diagnostics and system interventions.
- Deployment & DevOps Management: Enterprise applications using Docker, Git, Linux with version control, security compliance, cross-environment deployment for 15+ systems.

## TECHNICAL SKILLS

- Programming Languages: Python, Java, MATLAB, Dart, C, SQL
- Frameworks & Libraries: Django, FastAPI, React, Streamlit, TensorFlow, PyTorch, Scikit-learn, Hugging Face Transformers, OpenCV, SHAP
- Machine Learning & AI: Natural Language Processing (NLP), Computer Vision, Neural Networks, Federated Learning, Model Evaluation & Visualization
- Databases: PostgreSQL, MongoDB, SQLite, Firebase Firestore
- Networking & Systems: Cisco Packet Tracer, DHCP Configuration, TCP/IP, ICMP, Network Security, Linux System Administration
- Cloud & DevOps: AWS (Lambda, EC2, S3), Google Cloud Platform (BigQuery, Compute Engine), Docker, Git, CI/CD Pipelines
- Tools & Methodologies: VS Code, JIRA, Agile/Scrum, GitHub Actions, MATLAB IDE, Linux Shell Scripting

#### Positions of Responsibility

- Teaching Assistant, Jain University: Labs and coursework for 150+ B.Tech students in Software & Data Engineering and Virtualization & Cloud Computing.

  May 2024 Present
- Student Placement Coordinator, Jain University: 15+ placement drives with 30+ companies; 90% placement rate for 200+ students.

  Aug 2023 May 2024

## ACADEMIC ACHIEVEMENTS

- Research Paper: Convolutional Neural Networks for Early Identification of Skin Cancer, Tuijin Jishu Q3 Journal (2024).
- Journal Publication: Cursor Movement by Hand Gesture, IJRPR (2023).
- Study in India Scholarship: Ministry of Education, Government of India (2020).