

# Hector Neelam Rich

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## EDUCATION

**Mithibai College, India** – *Master of Science in Computer Science*

September 1988 – June 1994,

## Certifications & Skills

### Technical Skills:

- Programming Languages: Python, Java, C++, SQL
- Machine Learning: TensorFlow, Scikit-learn
- Cloud Computing: AWS (EC2, S3, Lambda), Google Cloud Platform (BigQuery, Dataflow)
- DevOps Tools: Docker, Kubernetes
- Database Management: MySQL, PostgreSQL
- Web Development: HTML, CSS, JavaScript, Node.js

### Other Skills:

- Algorithm Design & Optimization
- Data Structures
- Machine Learning Model Deployment
- Cloud Infrastructure Setup & Maintenance
- Software Version Control (Git)
- Teaching & Curriculum Development

## Projects

### Cloud-based Weather Forecasting Application

- Designed and deployed a cloud-based weather forecasting app using Python and Google Cloud Platform.
- Integrated third-party APIs for real-time weather data and used BigQuery to store historical weather trends for future analysis.
- Optimized the application for cost-efficiency by utilizing serverless technologies like Google Cloud Functions.

### Machine Learning Model for Sentiment Analysis

- Developed a machine learning model to perform sentiment analysis on customer reviews using Python, Scikit-learn, and TensorFlow.
- Trained the model on a dataset of reviews, achieving 85% accuracy in predicting positive or negative sentiment.
- Deployed the model using Flask and Docker for easy integration into web applications.

### Kubernetes-based Microservices Application

- Built a microservices architecture for a simple e-commerce platform, using Docker for containerization and Kubernetes for orchestration.
- Deployed the application on AWS, enabling it to scale based on user demand while maintaining service reliability.

## Professional Experience

### Computer Science Tutor

Self-employed | [2012-Present]

- Provided tailored one-on-one tutoring in computer science subjects including Python programming, data structures, and algorithms to students ranging from high school to university level.
- Created and led study groups and workshops focusing on cloud computing fundamentals and machine learning applications.
- Assisted students in completing practical assignments and capstone projects, improving their understanding of core topics.
- Offered guidance in preparing for coding interviews and competitive programming, helping students achieve placements at tech firms.

### Teaching Assistant (TA)

Mithibai College, India | [1994-2001]

- Conducted lab sessions for undergraduate computer science students, providing hands-on instruction in programming and algorithm design.
- Assisted professors in grading and offering constructive feedback on assignments and projects.
- Led revision sessions prior to exams, focusing on problem-solving techniques and programming best practices.