

# KASHISH HETAL SHAH

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## EDUCATION

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### Northeastern University

*Master's, Electrical and Computer Engineering*

- Coursework: Fundamentals of Computer Engineering (Teaching Assistant – Fall'24), Machine Learning and Pattern Recognition, Natural Language Processing, Data Management, Small Data for ML, Parallel Processing, Data Visualization, MLOps

### University of Mumbai

*Bachelor's, Electronics and Telecommunication Engineering*

- Coursework: Data Structure and Algorithms, Python for Data Science, Big Data Analysis, Business Analytics, Artificial Intelligence

## PROFESSIONAL EXPERIENCE

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### KAP Ventures

**Los Angeles, CA, USA**

*Machine Learning Engineer*

*May 2025 - Present*

- Implemented agentic AI workflows using LLaMA and GPT to power autonomous fashion styling assistants, driving social media growth from 0 to 20K+ followers and tripling user engagement within 2 months through dynamic, conversation-led experiences
- Deployed NLP microservices via FastAPI and AWS Lambda, reducing inference latency by 40% and enhancing real-time recommendations

### Northeastern University

**Portland, ME, USA**

*Assistant AI Researcher*

*Aug 2024 - Dec 2024*

- Researched infant neurodevelopment using 3D pose estimation models (Meta's SAPIENS, SMPL, SMIL) to support autism diagnostics in collaboration with cross-functional research teams
- Created 2D skeleton-based pipelines with Pyskl, converting 6+ hours of raw video into structured CSV datasets for behavior classification
- Processed and refined SSBD data with Pandas, NumPy, and OpenCV, reducing 50% size and accelerating preprocessing by 87%
- Supported university-led clinical research by aligning biomechanical analysis with ADOS scoring and documentation standards

### Northeastern University

**Boston, MA, USA**

*Data Scientist - Assistant Researcher*

*Mar 2024 - Jun 2024*

- Conducted deep learning experiments using TensorFlow and Keras, increasing classification accuracy by 18% on over 500 diagnostic samples, tracked experiments with MLflow and versioned pipelines using DVC to support reproducibility and model iteration
- Organized scalable ETL flows for over 200GB sensor data using Pandas and NumPy, reducing preprocessing time by 60% and enabling deployment through Docker and Kubernetes

### Kleren Oak

**Remote**

*Fullstack Software Engineer*

*Apr 2021 - Mar 2023*

- Launched 10+ production-ready applications using ReactJS, MongoDB and Firebase, reducing 20% delivery time and 30% load time
- Optimized backend APIs using Postman and PyTest, improving query speed by 25% and reducing bug resolution time by 40%

## PROJECTS

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### Breast Cancer Detection Using Transfer Learning Approach - [Link to project](#)

- Applied CNN-based transfer-learning for cancer classification, achieving 85.48% accuracy on the MIAS data (322 images)
- Integrated VGG16, VGG19, Inception-V3, and ResNet50 with preprocessing techniques and expanded the dataset 8x through augmentation, reducing computation by 30% and lowering false positives by 15%
- Evaluated performance using F1-score (0.92), AUC, precision, and recall, contributing to AI-assisted diagnostic improvements

### MindScope - Mental Health Dashboard - [Link to project](#)

- Built a real-time, user-centric NLP dashboard with Streamlit, processing 10K+ mental health-related tweets/day and achieving 92% sentiment classification accuracy using VADER, NRCLEX, and BERTopic, while maintaining relevant documentation
- Applied critical thinking and optimization skills to architect robust preprocessing workflows with spaCy, Pandas, and NLTK, reducing execution time by 35% and enabling 6+ interactive data visualizations for social insight exploration

## SKILLS

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**Programming Languages:** Python, C++, C#, C Programming, Java, HTML, MATLAB, JavaScript, SQL, Scala, TypeScript

**ML and Data Science:** TensorFlow, Keras, PyTorch, scikit-learn, XGBoost, Transformers, Pandas, Numpy, OpenCV, PySpark

**Data Engineering & MLOps:** Spark, Hadoop, Airflow, MLflow, DVC, FastAPI, Streamlit

**Web Development:** ReactJS, Next.js, Node.js, Express.js, Firebase, Tailwind CSS

**Databases & APIs:** REST APIs, PostgreSQL, GraphQL, MongoDB

**Cloud & DevOps:** Docker, Kubernetes, Digital Ocean, Jenkins, CI/CD, AWS (EC2, S3, Lambda), Vercel

**Visualization:** Tableau, PowerBI, Matplotlib, Seaborn, Plotly