

SULEKHA SINGH

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EDUCATION

Georgia Institute of Technology, MS in Computer Science, *Machine Learning* **3.7/4.0** GPA Jan 22 - Aug 24
Georgia Institute of Technology, MS in Project Management, **3.71/4.0** GPA Aug 17 - Dec 19
IIT Bombay, BTech in Civil Engineering with Honours, **8.76/10** GPA Jul 12 - May 16
Relevant Coursework: Software Development Process, Machine Learning, Knowledge-Based Artificial Intelligence (AI), Database systems & design, Computer Vision, Data & Visual Analytics, Cloud Computing

TECHNICAL SKILLS

Languages	Python, R, Java, Kotlin, C ₊₊ , C ₊₊ , Javascript/HTML/CSS, SQL, Bash
Frameworks & Libraries	Scikit-Learn, PyTorch, Keras, Tensorflow, NumPy, Pandas, OpenCV, Node.js
Visualization	React, D3.js, Power BI, Tableau, Quicksight, Matplotlib, Plotly, Seaborn, Leaflet
Tools	Git, Docker, Kubernetes, AWS (DynamoDB, Kinesis, S3, EC2, Lambda, Glue), Jira

RELEVANT PROJECTS

- Job Compare App** — Tech Stack: *Java, Android Studio, SQLite, Espresso, Junit, Git* [Github](#), 2023
- Developed a Job Compare App in Android Studio using Java, integrating over 10 SQLite database tables to manage and compare 5,000+ job offers based on multiple criteria like salary, benefits, and work-life balance.
 - Developed component diagram, deployment diagram, class diagram, sequence diagram and user interface designs.
 - Implemented advanced filtering and comparison algorithms using RecyclerView for side-by-side evaluations.
 - Utilized ViewModel and LiveData across 15+ screens, achieving 90% test coverage with Espresso and JUnit.
- Trading Stocks Agent (ML)** — Tech Stack: *Python, Scikit-learn, PyTorch, NumPy, Docker* [Github](#), 2023
- Developed a stock trading agent using Q-learning, integrating over 10 technical indicators, including RSI and MACD, resulting in a model that improved trading decision accuracy by 25%.
 - Implemented Q-learning with a dynamic Q-table, increasing total return by 40% during 5 years of backtesting.
 - Optimized trading strategies through extensive parameter tuning and feature selection, achieving a Sharpe ratio of 1.8 and reducing maximum drawdown by 15% in simulated trading scenarios.
- Housing Prediction** — Tech Stack: *Python, React, D3.js, Apache Nifi, Flask, Docker* [Github](#), 2023
- Developed an interactive housing price predictor web app using React and D3.js, integrating Random Forest and Gradient Boosting Regression models to analyze and predict prices with over 95% accuracy on 1M datarows.
 - Engineered data pipelines via Apache Nifi to manage and process 1M datarows, cutting processing time by 50%.
 - Containerized the application using Docker and implemented RESTful APIs with Flask.
- Stereo Correspondence(CV)** — *Used Python, OpenCV, LBP, MRFs, NumPy, SciPy* [Github](#), 2023
- Engineered a stereo correspondence algorithm using LBP over MRFs, enhancing depth accuracy by 20%.
 - Optimized a multi-component energy function, reducing MAE by 15% & RMSE by 18% across 1000+ pairs.
- Raven's Matrices AI Agent** — *Used OpenCV, Python, and ML for pattern recognition* [Github](#), [PDF](#), 2023
- Developed an AI agent for Raven's Matrices using OpenCV, solving 1,200+ problems with 85% accuracy.
 - Optimized image processing with edge detection and contour analysis, improving accuracy by 20%.
 - Enhanced problem-solving to handle 50+ unique matrix types, achieving a 75% average success rate.

LEADERSHIP AND WORK EXPERIENCE

- VDC Project Manager** — Turner Construction Company, *Atlanta, GA* Jan 2019 - Present
- Led a team of VDC specialists in the implementation of BIM technologies and conducted clash detection and coordination meetings to resolve design conflicts, resulting in a significant reduction in field changes and rework.
 - Collaborated with architects, engineers, and subcontractors on **20+** projects for value engineering optimizations.
 - Trained **100+** individuals and conducted **20+** sessions on BIM, clash, model collaboration, and Power BI.
 - Built **50+** Power BI dashboards for analyzing BIM data, progress data, safety and operations data.
- Graduate Research Assistant** — Georgia Institute of Technology *Atlanta, GA* Aug 2017 - May 2018
- Extracted Revit data and Text mined BIM log files with **3M+ rows** to extract design specific actions.
 - Performed Classification & Social Network Analysis on text-mined log files to identify the relationship in actions.
 - Publication:** "[Leveraging Blockchain Technology in AEC Industry during Design Development Phase](#)", ASCE International Conference on Computing in Civil Engineering 2019.