# Ritika Munibabu

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## Education

**University of Illinois** **Jan 2024 – Present**
*Masters in Computer Science* *Springfield, Illinois*

**RMK Engineering College** **June 2018 – May 2022**
*Bachelor of Engineering in Computer Science* *Chennai, India*

## Technical Skills

**Languages**: Python, C/C++, Java, HTML, CSS, JavaScript, Bootstrap, SQL.
**Al & ML** : Machine Learning, Deep Learning, Image Processing, Natural Language Processing, Data Analysis, Large Language Models, GenAI, Computer Vision, Time Series Analysis, OpenAI.
**Relevant Libraries**: NumPy, OpenCV, Scikit- Learn, Matplotlib, keras, SpaCy, Tensorflow, NLTK, PyTorch.
**Technologies/Frameworks**: AWS, Github, PowerBI, Canvas, Excel, Adobe Photoshop, ETL, Word, PowerPoint,

## Experience

**Illinois Department of Transportation** **Sept 2024 – Present**
*Digital Automation Intern* *Springfield, Illinois*

- Works as a Digital Automation Intern at the Illinois Department of Transportation in the Bureau of Information Technology under the Forms Support Management team, converting old Word forms into dynamic PDF forms using AEM Designer and DocuSign for improved efficiency, accuracy, accessibility, and overall user experience.
- Utilizes JavaScript to enhance form interactivity by implementing dynamic fields, validations, and automation features. Additionally, employs SQL to efficiently track, manage, and store form-related data, ensuring accuracy, accessibility, and seamless integration with departmental systems for improved workflow and streamlined document processing.

**Cognizant** **Oct 2022 – Dec 2023**
*Programmer Analyst* *Chennai, India*

- Actively engaged in multiple client meetings, fostering collaborative communication. Acquired valuable project insights through proactive participation and client interactions. Received comprehensive training in the IoT Java domain, gaining in-depth knowledge. Applied newly acquired skills to contribute effectively to the project's development.
- Demonstrated proficiency as a developer in the project; actively participated in development and execution phases. Demonstrated effective debugging skills by resolving issues in minor programs. Ensured the smooth functioning of the project by promptly addressing and rectifying program glitches, enhancing performance and reliability.

## Projects

**Pneumonia Detection: CNN, VGG16, and ResNet** | *Python, Image Processing* **November 2022**

- The proposed model is used to classify whether the person is affected by pneumonia using chest X-rays. Achieved a remarkable accuracy of around 91%, attesting to the model's reliability and effectiveness.
- Led a comprehensive study comparing Convolutional Neural Network (CNN), VGG16, and ResNet models for pneumonia detection, showcasing a deep understanding of diverse deep learning architectures and their applications.

**News Letter SignUp Application** | *NodeJs, ExpressJs* **January 2021**

- Developed a Newsletter Sign up page that sends the data entered to the mail chimp's server via API calls.
- The website is created using the standard login page of bootstrap which collects the user's name and email.
- Tech used: Express.js, Node.js, Mailchimp API, JSON, HTML/CSS.

**Analysis of Diseases based on symptoms** | *Python, Machine Learning* **January 2021**

- Used Ensemble Process (Logistic Regression, Decision Tree, Random Forest, SVM,and Naive Bayes) to identify the disease based on the symptoms. Applied image preprocessing techniques to enhance the quality of chest X-ray images.
- Communicated findings, and effectively presented results using data visualization techniques. Two different kinds of self-created data sets were used to evaluate this model. Acquired an accuracy score of 97.62%.

**Credit Risk Modeling** | *Python, ML Pipeline, Ensemble Learning* **October 2020**

- Analyzed the Lending Club dataset from Kaggle, consisting of 2 million loan applicants, to construct a probability model that predicts loan default risks. Employed data cleaning, feature engineering, and statistical modeling to enhance the accuracy of predictions, ensuring a robust analytical framework for risk assessment.
- Extracted valuable information for strategic decision-making, product development, trend analysis, forecasting, and provided actionable insights, thereby effectively facilitating informed and strategic decision-making processes.