

# Pravallika Dindukurthi

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## EDUCATION

**Master of Science in Computer Science (AI/ML Specialization)**, University at Buffalo (GPA 4.0/4.0) **December 2024**  
*Coursework:* Algorithms Analysis and Design, Operating Systems, Data Intensive Computing, Data Modeling, Deep Learning  
**Bachelor of Technology in Computer Science and Engineering**, SASTRA University (GPA 3.34/4.0) **July 2021**  
*Coursework:* Data Structures and Algorithms, DBMS, Cloud Computing, Parallel & Distributed Computing, Machine Learning

## SKILLS

**Programming and Scripting Languages:** Python, Golang, Java, Java Script, Shell, HTML/CSS, React  
**Libraries & Frameworks:** TensorFlow, PyTorch, Scikit-learn, Flask, Jenkins, Git, Jira  
**Big Data & Tools:** Apache Hadoop, Spark, Kafka, Hive  
**Cloud & DevOps:** Docker, Kubernetes, Knative, IBM Cloud, Google Cloud Services (GCP), Microsoft Azure, Terraform, AWS (S3, DynamoDB, CloudWatch, ECS, Lambda)  
**Databases:** IBM Db2, MySQL, PostgreSQL, MongoDB

## EXPERIENCE

**IBM, India | Software Engineer** **August 2021 – July 2023**  
**Stack:** Go, Shell, JS, Docker, Kubernetes, CI/CD, Tekton, YAML, Terraform, API, E2E Testing, Automation, Linux, Networking

- Worked on IBM Cloud Code Engine, a fully managed serverless platform for deploying and running containerized workloads, including web apps, microservices, event-driven functions, and batch jobs, with automated scaling on Kubernetes.
- Optimized workflows for container image creation, deployment, and scaling, and integrated managed services to enhance application functionality.
- Improved system reliability by fixing critical bugs, adding new features, and creating and maintaining DevOps pipelines using Concourse CI and Tekton, while enhancing logging and monitoring systems for better observability.
- Performed on-call DevOps duties, ensuring smooth operations by monitoring systems, troubleshooting production issues, and handling deployments of microservices.
- Authored technical blogs on Medium and IBM Blogs, driving a 25% increase in user engagement by educating users on Code Engine's features, use cases, and best practices.

**IBM, India | Application Developer** **January 2021- August 2021**  
**Stack:** Python, Java, HTML/CSS, JS, IBM Cloud, IBM Watson, IBM Db2, IBM Sterling OMS, Webhooks, RandomForest, XGBoost

- Designed and deployed an AI-Powered Travel Quote Manager, integrating webhooks for real-time communication between chatbot workflows, shopping systems, and backend services. Implemented machine learning models on IBM Cloud to deliver personalized travel recommendations, packing lists, and itineraries.
- Built a dynamic frontend interface and developed an order fulfillment pipeline in IBM Sterling OMS, automating order capture, scheduling, and shipment tracking using Java, improving operational efficiency by 30%.
- Created an integration asset for IBM to enable seamless interaction between Watson Studio and Watson Assistant.

**Accenture, India | Software Engineer** **April 2020 – July 2020**  
**Stack:** Apache Hadoop, Hive, Sqoop, HDInsight, Data Factory, Data Lake, SQL, Java, Terraform, Python, Tableau

- Architected and deployed a cloud-native big data integration and security solution, leveraging Azure HDInsight and Azure Data Factory to streamline ETL workflows and enable scalable, secure data orchestration.
- Automated data masking and encryption workflows using custom Hive UDFs and Terraform for infrastructure-as-code deployment, employing advanced encryption techniques to protect sensitive and personally identifiable information.
- Performed data integration and in-depth data analysis and visualization using Python and Tableau, delivering actionable insights to drive decision-making while ensuring compliance with security and governance standards.

## PROJECTS

**Open-Source Contributions | Golang Developer | Project Shipwright | Go, Git, Ko, Docker, Kubernetes, E2E Testing**

- Contributed to Shipwright, a Kubernetes-based framework for building container images that simplifies image creation with minimal YAML configuration and Git-based workflows.
- Developed an automated cleanup tool to manage completed Builds and BuildRuns based on retention parameters, improving resource utilization and reducing node consumption by 25%.

**QA Gen: Deploying a Transformer-Based Question-Answering System | Python, TensorFlow, Pytorch, Docker, Flask, AWS EC2**

- Developed and deployed a QA system using transformer models (BERT, RoBERTa) fine-tuned on the SQuAD dataset, achieving an EM score of 85% and F1-Score of 91%, with a REST API hosted on AWS EC2.
- Built a pipeline for data preprocessing, model training, and inference, integrating the system into a user-friendly interface for virtual assistants, enabling dynamic, context-aware query responses.

**Credit Predict – Loan Approval Prediction and Credit Analysis | Python, Scikit Learn, Keras, HTML/CSS, JS, Flask, Docker, EC2**

- Designed and deployed a loan prediction system with Random Forest, achieving 94% accuracy and an F1-score of 0.93, hosted on AWS EC2 with Flask for real-time predictions.
- Developed a user-friendly web application, containerized with Docker, to provide actionable credit insights and secure, scalable financial decision-making.