

# PRUDHVI ARUN CHEKKA

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*"A committed team player and an enthusiastic learner with 5 years of experience as a Developer in multiple Agile teams. Proficient in a wide range of programming languages, tools, and technologies, with a strong foundation in computer science concepts".*

## EDUCATION

University of Georgia, Athens GA, USA

Jan 2023 – May 2024

Master's in Computer Science

GPA: 4.0

Courses: Advanced Distributed System, Advanced Information Systems, Data Science, Algorithms, SE, DBMS, Computer Networks.

## SKILLS

**Programming Languages:** Java, JavaScript, Python, C, PowerShell, HTML, CSS, SQL.

**Databases:** Oracle, MySQL, Microsoft SQL Server, SQLite.

**Frameworks and Tools:** Flask, Django, React, SQL Server Management Studio, Jupyter Notebook, Informatica, Jenkins.

**Cloud:** AWS, Microsoft Azure, GitHub, CI/CD, Docker.

**Visualization:** Power BI, Tableau.

## PROFESSIONAL EXPERIENCE

Senior Python Developer, General Electric, Bangalore (India)

Jul 2021 – Dec 2022

- Build **REST API functions** using Flask framework, essential for all lines of business in GE to execute over 500 ETL tasks daily in **AWS**.
- Architected a robust **Role-Based Access Control (RBAC)** system to manage AWS Redshift data warehouses data access permissions with optimized administrator oversight.
- Implemented robust **authentication** and **authorization** mechanisms using **OpenID Connect (OIDC)** by leveraging GE-SSO, ensuring **secure access** to protected endpoints, profile retrieval and enforcing authentication workflows for enterprise applications.
- Worked with comprehensive **AWS pipeline** management system using Python, **Boto3**, and Docker, enabling deployment and orchestration of **AWS ECS, EC2, Fargate, Event bridge**, and **Lambdas**.
- Employed **multi-threading** and **lazy loading** techniques to optimize code, resulting in **40% reduction** in execution time.
- Assumed end to end ownership and comprehensive responsibility for projects, proficiently steering them from the proof-of-concept stage to successful deployment in the production environment.

Software Engineer, Tata Consultancy Services (Client: NYL), Hyderabad (India)

Jun 2018 – Jul 2021

- Utilized **Power BI** to create interactive dashboards and charts, incorporating key performance indicators (**KPIs**) for comprehensive analysis and real-time monitoring of classification data and product revenue in business growth.
- Reviewed and validated backup processes and change management protocols to ensure data integrity and system reliability.
- Designed and developed more than 50 Control Reports to test more than **450K** policies and **80,000K** transactions during a data migration employing **SSIS** and **Python Automation**.
- Automated querying and comparison of data between **Oracle** and **SQL Server** databases using **linked server** functionality.

## PROJECTS

ScalaTion Project | Computational Data Science

- Actively contributed to the Scalation project as a Research Assistant, working in the development of **Regression Trees** to facilitate optimal data splitting at greater depths within a comprehensive modeling using **Scala**.
- Implemented **feature bagging** approach to enhance the versatility and performance of **Random Forests**, mitigating overfitting.
- Engineered a **gradient-boosting** algorithm, showcasing adeptness in implementing and optimizing machine learning algorithms.
- Conducted comparative assessments against **scikit-learn's** libraries and SclaTion, achieving a correlation of 98%.

Distributed String Array Management with Concurrency Control Using Java RMI

- Implemented a distributed system to manage an array of strings as a remote object, utilizing **Java RMI** for remote method invocation and ensuring concurrency control with read and write locks.
- Designed and implemented **synchronization** to handle simultaneous client requests, preventing **race conditions**.
- Developed client operations for fetching, printing, and writing elements, maintaining synchronization through locks.

House Price Predictions | Advanced Regression Techniques

- Conducted comprehensive Exploratory Data Analysis (EDA) to identify patterns and detect outliers across 79 feature variables.
- Implemented data preprocessing strategies to address missing values and categorical data through data imputation, normalization, and one-hot encoding, utilizing **NumPy** and **Pandas** to ensure an optimized dataset.
- Developed models using Grid Search for hyperparameter tuning and **K-fold Cross-Validation** for robust performance evaluation.
- Enhanced predictive accuracy and model stability by leveraging **stacked regression** and **ensemble methods**, successfully improving the RMSE score from 0.11 to 0.074.