PACHAVA ABHIGNYA

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EDUCATION

KHOURY COLLEGE OF COMPUTER SCIENCES, NORTHEASTERN UNIVERSITY   **Boston, MA**
Master of Science in Data Science   **Jan 2022 - Dec 2023**

VNR VIGNANA JYOTHI INSTITUTE OF ENGINEERING AND TECHNOLOGY   **Hyderabad, India**
Bachelor of Technology in Computer Science Engineering   **Aug 2016 - Sep 2020**

SKILLS

Languages: C, C++, C#, Java, Python, R, MySQL, NoSQL, MongoDB, PostgreSQL, HTML, CSS, JavaScript
Frameworks: Angular, React, Node.js, Flask, Material-UI, REST API, Docker, Kubernetes, CodedUI, WPF
Developer Tools: Git, VS Code, Visual Studio, Eclipse, Jupyter notebook, Google colab, JIRA, TFS
Libraries: Numpy, Pandas, Scikit learn, TensorFlow, Keras, PyTorch, nltk
Cloud/Data Processing: AWS, Google Cloud Platform, Data cleaning, Data Modeling, Tableau, Power BI, Google data studio, Matplotlib, Seaborn

PROFESSIONAL EXPERIENCE

ABECEDARIAN
Research Assistant   **Feb 2024 - Present**
- Orchestrated **ML algorithm optimization** for Abecedarian using **Python, TensorFlow,** resulting in a **15%** improvement in predictive accuracy.
- Streamlined data processing workflows with **Pandas** and **Scikit-learn,** enhancing efficiency by **20%** and supporting scalable analytics solutions.

KHOURY COLLEGE OF COMPUTER SCIENCES
Boston, MA
Graduate Teaching Assistant - Algorithms, Discrete Structures   **Sep 2022 - Dec 2023**
- Elevated the comprehension and application of Algorithms and Discrete Structures for **200**+ students by integrating practical coding examples and interactive problem-solving sessions in **Java, Python,** and **C#,** achieving a notable increase in A grades among students from non-math backgrounds.
- Pioneered the adoption of blended learning techniques in computer science education, enhancing student engagement and understanding of **complex algorithms** and **data structures** through the use of **React** and **SQL** projects, boosting course completion rates by **20%.**
- Transformed learning experience for students struggling with abstract concepts in Discrete Structures by developing custom educational tools and simulations in **Python,** resulting in a significant improvement in student performance and satisfaction.

NCR CORPORATION
Hyderabad, India
Software Engineer   **Jan 2020 - Dec 2021**
- Engineered responsive **UI/UX designs** for **25** screens and **7** pickers in **R10,** employing **React TS, React Hooks,** and **Material-UI,** enhancing user satisfaction; implemented version control best practices with **Git** and **Bitbucket.**
- Led performance optimization of a critical item picker feature in **R10** through **advanced C# programming, .NET Core development**, and **SQL optimization,** achieving a **15%** improvement in response times.
- Pioneered a multilingual translation feature in **R10,** utilizing **react-i18next,** making the application accessible in over **50** languages, boosting global market reach.
- Upgraded application architecture by migrating **30** controllers from **.NET** to **.NET Core,** adopting **SCRUM agile practices,** which significantly enhanced modularity.
- Fostered **technical growth** of **3** interns by leading them in rapid service implementation for **R10,** using **CodedUI** and **Cypress** for robust **integration testing.**
- Built a **Python-based fraud detection model** using **logistic regression, Pandas** and **Numpy** for fraud detection, integrating **SQL** for data management, achieving a precision of **0.81** in predictive accuracy.
- Designed and implemented secure, scalable **full-stack applications** using **Python/Flask** and **React,** with **Docker** for containerization and **Kubernetes** for orchestration, achieving **99.9%** uptime and enhanced deployment efficiency.

MROADS
Hyderabad, India
Software Engineer Intern   **Dec 2018 - May 2019**
- Increased OneDine server app's efficiency by integrating a payment module with React-Redux, achieving **36%** boost in process speed and improving user interface.
- Resolved **15** critical bugs in both the OneDine customer app and **Panna AI-driven** interview platform by employing **JIRA** and **Confluence** for strategic tracking and management, which ensured uninterrupted service and boosted system reliability.
- Streamlined **Full Stack development processes** by leveraging **React,** and **SQL** for various projects, leading to optimized system functionality and enhanced data processing capabilities, meeting key project delivery milestones.

PROJECTS

GROCERY TIME (React, REST API, MongoDB, Material UI, Git, Heroku)
- Engineered and deployed a **React-based full-stack e-commerce website** with **REST API** and **MongoDB,** incorporating **Material UI** and **Git** for user-friendly product search, cart functionality, and wish-list feature, enhancing shopping experience; successfully launched on **Heroku** for real-world accessibility and testing.

SMARTCARE: HOSPITAL MANAGEMENT SYSTEM (React, Node.js, Express, SQL, Material UI)
- Built a **React** and **Node.js-based** Hospital Management System using **Express** and **SQL,** integrating features like patient registration, appointment scheduling, and **EMR;** optimized **SQL queries** to achieve an average **EMR** retrieval time of under **2 seconds,** and designed a user-friendly interface with **Material UI.**

FINTRACK (Java, Spring Boot, SQL, Angular)
- Created a **Java** and **Spring Boot-based** real-time portfolio tracking and performance analysis system, integrating an **Angular** frontend for **market data** and performance metrics display, and built a **SQL** database for effective asset allocation strategies, enhancing secure authentication and investment decision-making.

EFFITASK (HTML, CSS, JavaScript, React, Node.js, Express.js, SQL, RESTful API, JWT, Git, Heroku)
- Crafted EFFITASK, a responsive To-Do List Application using **HTML, CSS, JavaScript, React, Node.js, Express.js, SQL, RESTful API,** and **JWT,** achieving a **15ms** task confirmation response time; integrated **task management features** and secure user authentication, deployed via **Heroku** for enhanced accessibility.