Bhoomika Jethwani

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EDUCATION

Master of Science in Computer Science | Northeastern University | Boston, MA, USA   **Sep 2021 – May 2023**

- **Related Courses:** Programming Design Paradigms, Algorithms, Artificial Intelligence, Information Retrieval, Computer Systems, Mobile App Development, Web App Development, Database Management Systems (**CGPA**: 3.7/4.0)

Bachelor of Tech. in Computer Science | Symbiosis International Uni. | India   **Jul 2016 – May 2020**

- **Related Courses:** Object Oriented Design, Algorithms, Operating System, Distributed Systems (**CGPA** – 8.78/10 **1st Rank**)

PROFESSIONAL EXPERIENCE

Intel Corporation | Chandler, AZ, USA   **Aug 2022 – Apr 2023**

Software and Systems Validation Engineer –**Debugging, Data Analytics, Development & Testing**

- Planned and monitored **automated validation** test logs hourly on NGA to debug 35% more issues in embedded systems.
- Developed **Python** script on test logs for daily, weekly **report** on farm coverage analysis improving runtime efficiency by 30%.
- Enhanced **Perl** and **Python** scripts run in the **Docker** image to create a testing GIT **CI/CD** pipeline for efficient debugging.
- Led **Pre and Post – Silicon** tests by making Docker YAML files to improve processing speed by 20% in Agile (JIRA) story.

Northeastern University | Boston, MA, USA   **Jan 2022 – May 2022**

Graduate Teaching Assistant – **Artificial Intelligence**

- Volunteered to help professor with a class of 60+ students for holding office hours, grading assignments, and managing logistics.

Manahel Training Centre | Manama, Bahrain   **Jan 2021 – Jul 2021**

Software Engineer –**Full Stack Web Developer (MongoDB, Express, React, Node, JavaScript), Automated Testing, TDD**

- Built a large-scale muti-threaded web app using **ReactJS** for front-end for Employees to handle 1000+ concurrent form requests.
- Customized **Microservices** and **REST APIs** to help in boosting scalability of the WorkSafe healthcare application.
- Collaborated with platform teams to enhance efficiency by 15% through the implementation of networking domains.
- Optimized PaaS Cloud platform by designing web services to teams deploy the app more than 20 times in a day.

E.K. Kanoo B.S.C (ERP *Department*) | Manama, Bahrain   **May 2019 – Jul 2019**

Data Engineer, DevOps

- Executed **data warehousing** and **ETL** on Oracle eBusiness Suite to efficiently reduce data extraction time by 40% from server.
- Utilized **Kubernetes** containers to establish a stable development environment to help reduce system downtime by 15% weekly.

TECHNICAL SKILLS

Programming Languages:	Python, Java, C, C++, HTML, XML, R, Android, Perl, JavaScript, React, Node, Bash
Platforms & Tools:	IntelliJ, PyCharm, Docker, Informatica, VSCode, DevC++, Kubernetes, Jupyter Notebook, Eclipse, Google CoLab, GitHub, Amazon Web Services, RStudio, MobaXterm
Operating Systems:	Windows, Ubuntu (Linux), Mac OS, CentOS
Database:	MySQL, Oracle PLSQL, SQLite, Microsoft SQL Server, MongoDB, Xampp, PostgreSQL
Libraries:	PyTorch, TensorFlow, NumPy, Pandas, JSwing, Java AWT, Pyserini, NLTK, Keras

ACADEMIC PROJECTS

Real Estate Web Application, Website to buy, sell and rent properties in **React, Node, JavaScript, HTML5, CSS3**   [Link]

- Engineered a scalable dynamic full-stack web app utilizing MongoDB cloud storage, facilitating seamless property transactions.
- Implemented advanced features such as API calls for bookings and profile management elevating user experience by 20%.
- Employed robust security measures with jQuery, including encryption and user authentication, in entire application to ensure privacy and confidentiality of user data within cloud-based database.

Dungeon Game, Maze Generator Game using a modified Kruskal's Algorithm [Link]

- Created a game in **JAVA** where player generates and navigates through a dungeon maze collecting weapons, treasures, killing and avoiding monsters to reach end of game by navigating tunnels, caves through keyboard or mouse clicks.
- Utilized Model-View-Controller (MVC) design pattern for scalability across modules and built intuitive GUI with JSwing API.
- Conducted JUnit tests for functionality, GUI for 10 different users and modes ensuring seamless gameplay and user satisfaction.

Fitness Tracking Mobile App, App to log workouts, save progress pictures & monitor progress in **Android Studio**   [Link]

- Led team of three to build multi-threaded fitness app with user-friendly GUI, cloud-based DB, real-time updates and messaging.

Kernel Shell Implementation and Evaluation, C and Linux Programming [Link]

- Parsed 50+ commands entered in shell as individual tokens for keywords (cat, ls, echo) and symbols (pipe, I/O, parenthesis).
- Implemented functionality of each parsed token using shell commands in C and produced output based on user text input.

PUBLICATION

Indian Agricultural GDP and NPA - A Regression Model, Published in IOPScience (ICMLSC Dec' 2020)   [Link]

- Designed a **regression model** to predict Agricultural Sector GDP and NPA amount for a year with accuracy rate of 98% to analyze performance and growth of the sectors. Integrated model with Asset Tech smart contracts on **Blockchain.**