

Heet Dave

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EDUCATION

M.S. in Computer Science

Arizona State University, USA

Aug. 2019 - Exp. May 2021

GPA: 3.89

Coursework: AI, Data Visualization, DBMS Implementation, Sementic Web Mining, Compiler Design

B.Tech in Information and Communication Technology

Dhirubhai Ambani Institute of Information and Communication Technology

Aug. 2014 - May 2018

(DA-IICT), India

TECHNICAL SKILLS

Languages C++, Javascript, Python, Java, C#

Frameworks React, Redux, SpringBoot, NodeJS, ASP.NET WebAPI

Web Tech AWS, CloudFoundry, CaaS, DBaaS, PostgreSQL, MongoDB, MSSQL, MySQL, Socket.io, d3.js, jQuery

Tools Docker, Jenkins, GitLabCI, Apache Airflow, Dagster, Git

PROFESSIONAL EXPERIENCE

Intel Corporation, Chandler, AZ

Sept. 2020 - Present

Software Engineering Intern

- Took leadership in developing **Software Architecture** of Machine Learning based defect detection system for chip manufacturing tools. Used **cloud servers and database service** to ensure high availability while reducing storage needs by 98%.
- Developed **front-end** of the WebApp from scratch using **React/Redux** to display information about defects including interactive charts which offers better user experience with 93% reduction in charts loading time.
- Created **CI/CD pipeline** using GitLabCI which streamlined deployment process. Implemented **Data pipeline** using Dagster tool which increased reliability of data pulls and allowed faster debugging.
- Researched various time-series prediction algorithms to detect defects in manufacturing tools.

Apollo Education Group, Phoenix, AZ

Jun. 2020 - Aug. 2020

Software Engineering Intern (Data Engineering)

- Created an **ETL pipeline** to process students and course data generated by Blackboard using **Python** and **AWS Glue** which involved use of **microservices, DynamoDB and S3**.
- Created another ETL pipeline using **AWS Athena** for data generated by Blackboard in AWS S3. Leveraged partitioning in AWS Athena which reduced the data retrieval time significantly. Used **Apache Airflow** for scheduling jobs.

Endurance International Group, Bangalore, India

Dec. 2018 - Jul. 2019

Software Engineer (Front-end)

- Developed **front-end** of Billing Engine using **ReactJS/Redux** for 13K+ re-sellers which eliminated need for 3rd party billing tool.
- Implemented caching-like technique in search and filter functionality which reduced calls to back-end significantly.

Fintech Global Center, India

May. 2018 - Dec. 2018

Software Engineer (Full-stack)

- Developed administrative web applications using **ASP.NET WebAPI, Javascript/jQuery and MSSQL** to view/filter/export trading data, manage users/access and software distribution for the new trading platform targeted for financial institutions of Asia.
- Setup Continuous Integration (CI) using **Jenkins** which streamlined the deployment process increasing the efficiency of DevOps.
- Created SFTP (SSH File Transfer Protocol) client using **C++** to send trading data securely to the client's server.

Indian Space Research Organisation (ISRO), India

Jan. 2018 - May. 2018

Intern

- Automated SRS document checking process by developing **Natural Language Processing** and **Neural Network** based tool using **Python** and **NLTK**. Used probabilistic N-gram language model and Part-of-Speech tagging to generate input features.

PROJECTS

Nuclear Plant Radiation Visualization

Oct. 2020 - Dec. 2020

- Created different visualizations (Choropleth, Bar chart, Circular Heat chart and Line chart) using **d3.js** to display radiation effects due to earthquake near nuclear plant. The viz helped get insights on data such as sensor requirements and most affected areas.

Real-time chat application

Jan. 2021

- Created a real-time chat app with room-chat functionality using **Socket.io**. Implemented front-end using **ReactJS** and used **Nodejs** and **MongoDB** for back-end and database.

Mini-Compiler

Aug. 2019 - Dec. 2019

- Created a compiler using **C++** which parses input program according to particular grammar, stores it using appropriate data structures and executes it while also considering scoping.