

Dhruvil Patel

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Education

Master of Science in Computer Science

01/2021 - 05/2022

University of North Carolina At Charlotte, NC, USA | GPA: 4.00/4.00

Dual Concentration in Data Science and Software, Systems, and Networks

Relevant Coursework: Algorithm & Data Structures, Software System Design & Implementation, Network-Based Application Development, Mobile Application Development, Operating Systems, Big Data Analytics

Bachelor of Technology in Computer Science & Engineering

06/2016 - 06/2020

SRM University, Chennai, IN | GPA: 8.2/10.0

Relevant Coursework: Data Mining and Analytics, Advanced Python, Computer Networks, Algorithm Design and Analysis, Artificial Intelligence, Cloud Computing, Linux Internals, Compiler Design, Robotics, and Engineering Applications

Professional Experience

Amazon Physical Stores

07/2022 - Present

Software Development Engineer | Seattle, USA

- Optimized and implemented tools and services for Inventory Health Management used across hundreds of Amazon stores
- Designed and implemented functionalities to make Inventory APIs compatible with Amazon Robotics. Reduced product retrieval time by 50% by enhancing service capabilities to disambiguate similar products
- Migrated legacy Angular front-end components to React/Meridian for various business use cases
- As an SDE on the team, I leveraged various AWS services(e.g. Redshift, QuickSight, Lambda, S3, SNS, Glue, SageMaker) and resolved high severity tickets, SAS, and shepherd risks, and updated the Operational Excellence sheets during on-call
- Increased service efficiency by 30% by configuring key performance metrics monitors such as latency and DynamoDB capacity. Wrote pipelines and dashboards for the same to support operations and research

Indian Oil Corporation Limited

05/2019 - 08/2019

Web Developer Intern | Delhi, India

- Developed a client-server application software for issuing E-GatePass applications and queries. Automated existing system increasing its efficiency and effectiveness
- Devised the security module for the software while increasing its accuracy by 42% and performance by 12% as a result of fixing bugs found during end to end testing. Write automation tests for user authentication and user detail validation using regular expressions

ItechGrow

05/2018 - 07/2018

Android Developer Intern | Gujarat, India

- Developed a hybrid project for clients requiring cross-platform support for their mobile application
- Used Flutter to reduce app development cost by 40% for a cross-platform mobile application

Selected Projects

GameDigger | HTML5, CSS3, JavaScript, jQuery, NodeJS, Express.js, MongoDB, Mongoose

- Developed a web portal for gamers community at UNC Charlotte to share servers of nostalgic games with peer-to-peer dynamic chat capabilities
- Integrated Mongoose ODM and implemented logging features to track control flow for better analysis and debugging
- Implemented scalable and responsive website with large-scale MongoDB solution using Node.JS and REST APIs with support for user authentication and authorization to ensure data security

The Reviewer | Deep Learning using Neural Network, Android studio, Java, Postman

- Implemented sentimental analysis API using Deep Learning (Neural Networks) to review students' and faculty comments on college products.
- Integrated the API in an Android application using Java, firebase, and Android Studio to find sentiments in those comments. Assisted university goods production team to increase positively commented goods by 20% using the application.

Driver Distraction system | IoT, Python, Machine Learning, Arduino IDE

- Developed a smart device to detect distracted or drowsy drivers to improve road safety
- Device fused and tracked multiple modalities such as drivers pulse(using Arduino), facial expressions, eyes movement, and yawn and fed its output to Haar-cascade algorithm based object detection model.
- System achieved 50% speed up while maintaining the same accuracy as compared to state of the art approaches at the time. Publications: [IJITEE](#) (Scopus) and [IJRASET](#) Journals

Technical Skills

Programming languages:

Java, Python, C/ C++, GoLang, R, C Sharp, JavaScript, TypeScript, Ruby

Cloud Technologies:

AWS, GCP, Azure, Docker, Git

Web technologies:

HTML5, CSS3, Node.JS, React.JS, Angular, REST, Django, Spring MVC, AJAX, JUnit

Database:

MySQL, SQLite3, PostgreSQL, MongoDB, Hadoop, Spark, Hive, DynamoDB

Machine Learning:

NumPy, Pandas, Alchemy, Selenium, SciKit, BeautifulSoup, TensorFlow