PARTH PATEL

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EDUCATION

University Of Waterloo

September 2021 – December 2022

MENG. in Electrical and Computer Engineering (Software) Grade: 91/100 Waterloo, Ontario, CA

Dharmsinh Desai University

September 2016 – May 2020

Bachelor of Technology in Information Technology Grade: 8.34/10 Nadiad, Gujarat, IN

TECHNICAL SKILLS

Languages: Java, Python, C, C++, JavaScript, SQL, HTML5, CSS3

Tools & Frameworks: Node JS, Flask, ExpressJS, Hadoop, Spring Boot, .NET, Django, RESTful APIs

Databases: MySQL, PostgreSQL, Cassandra

Developer tools: VS Code, Eclipse, Git, Latex, Docker, Kubernetes, Postman, Swagger, Jenkins

Libraries: Pandas, NumPy, Matplotlib

EXPERIENCE

University of Waterloo Research Assistant

January 2022 - June 2022

Software Engineer Intern

Waterloo, Ontario, CA

- Analyzed **DeepLabCut architecture** and **LEAStereo Architecture** of Deep Learning to a small amount of training data to track user-defined features precisely.
- $\bullet \ \ A chieved \ \textbf{90\% accuracy} \ \ by \ applying \ \textbf{advanced} \ \ \textbf{Reinforcement Learning} \ \ techniques \ to \ optimize \ a \ robot \ simulator.$

TATA Consultancy Services Ltd (TCS)

May 2020 - August 2021

 $Software\ Engineer$

Gandhinagar, Gujarat, IN

- Acquired Scrum Methodology and Agile Framework software development experience during ILP.
- Engineered an **Auto Debit feature** via credit cards within the **Spring Batch framework**, streamlining payment systems for clients across **12 prominent international banks**.
- Implemented Multi-threading and tuned various KTRs in Pentaho to improve performance of code by 38%.
- Resolved numerous UAT and priority-1 issues within minimum timeframes during client testing. Coordinated a team of 6 developers and testers to migrate and test performance of multiple features on data for over 300k users.
- Utilized Git for code version control on Bitbucket, ensuring seamless collaboration and efficient code integration.

ACADEMIC EXPERIENCE

Physical Research Laboratory

January 2020 - April 2020

Ahmedabad, Gujarat, IN

Research & Development Intern

- Performed anomaly detection with various classes of images and generated images using Generative Adversarial Networks (GAN) in "deep learning".
 Accomplished Hyperparameter Optimization on the GAN algorithm as well as on CNN, achieving exactly optimized
- parameter values. Leveraged LG's AUPTIMIZER Software.

 Extended and executed GAN Architectures such as CGAN model. ACGAN model. StackGAN model, and Advanced GAN.
- Extended and executed GAN Architectures such as CGAN model, ACGAN model, StackGAN model, and Advanced GAN architectures such as the WGAN model, ProgressiveGAN model, and BigGAN model.

PROJECTS

 ${\bf Indeed\ Prototype}\ |\ \textit{ReactJS},\ \textit{NodeJS},\ \textit{MySQL},\ \textit{Redis},\ \textit{Kafka},\ \textit{Docker},\ \textit{AWS}.$

January 2021

- \bullet Devised a 3-tier distributed, scalable, and fault-tolerant web application in a team.
- Collaborated to implement Sockets, CRON Jobs, containerization, and JWT Passport Authentication. Enhanced performance by 40% using optimization techniques: Redis caching and connection pooling.
- Deployed application on AWS, configured load balancers to handle 10,000 simultaneous user requests, measured using JMeter, and got to know about how scalability creates a huge performance impact.

On-Demand Music System | Java, Android Studio, Firebase

November 2019

• Built two applications using the Iterative Waterfall model: a client app allows users to rate a song, and an admin app allows franchise owners to play a particular song. Clients have the ability to up-vote, down-vote, play, pause, and remove songs, while administrators can create albums, add franchise owners, and, importantly, sort songs based on upvotes.

ShopKart | Java, Spring, Angular JS, MySQL, Jenkins

October 2019

- Led a team of 3 engineering students in developing an E-Commerce website utilizing a spring framework for backend development and MySQL for data storage and APIs.
- Devised a reactive user interface with AngularJs and managed integration and deployment with Jenkins. Created test cases with the JUnit framework, and its coverage was 90%.

Gym Management System | MySQL

October 2018

• Developed a system that handles records of gym members and trainers, providing facilities such as BMI calculation, database update and deletion, renewing entries, and including functional checks for invalid members, subscription of members, and automatic primary key generation.

LEADERSHIP / EXTRACURRICULAR

The Twenty Fifth Hour

 $Co ext{-}Founder$

- Conducted Open mics across various cities of India and hosted more than 200 people in each event.
- Gained more than 15000+ followers across various social media platforms.
- Collaborated with various universities and organized literature seminars and workshops.