Dhruv Patel

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EDUCATION

California State Polytechnic University Pomona   **Aug 2022 - Dec 2024**
Masters of Science (MS) — Computer Science
CGPA: 3.62/4.0

Gujarat Technological University, Ahmedabad   **Aug 2019 - May 2022**
Bachelor of Engineering (BE) — Computer Engineering
CGPA: 7.78/10.0

SKILLS

Languages & Tools: Java, Python, HTML 5, CSS 3, JavaScript, GitHub, Postman, JUNIT, Apache Tomcat.
Frameworks & Libraries: Spring Boot, Hibernate, Flask, ReactJS, pandas, numpy.
Cloud Platforms: AWS (RDS, S3, VPC, EC2, lambda), Salesforce Administrator, Azure, GCP.
Database management: SQL, MySQL, PostgreSQL, PL/SQL.

EXPERIENCE

BISAG   India
Software Engineer Intern   *Jan 2022 – May 2022, Internship*
- Optimized data structures and architecture design and improved project quality by 20%.
- Debugged 45% of software issues by collaborating with cross-functional teams during the SDLC.
- Delivered bi-weekly sprints 2 days ahead of schedule and increasing 20% efficiency in an Agile (Scrum) environment.

Kretoss Technology   India
Software Developer Intern   *Jun 2021 – Dec 2021, Internship*
- Developed a scalable application using java, Spring boot framework and AWS.
- Created detailed wireframes, DFD's, and process models for clear system design.
- Deployed application on AWS EC2 and integrated RDS instance and Postgres for seamless database hosting.
- Participated in review activity to check on the readability, accuracy, and efficiency of code.

PROJECTS

Fake News Analysis using Machine Learning Algorithms | *GitHub*
- Achieved 94.47% of accuracy with models like KNN, Decision Tree, Random Forest, Gradient Boosting and Passive Aggression on a balanced dataset.
- Preprocessed and trained on a dataset with equal distribution of a Real (50.1%) and Fake (49.9%) news article, utilized pandas, NumPy & scikit learn libraries for data visualization, preparation, and training.

Performance Evaluation of 5Greplay on 5G network
- Executed replay attacks using fuzzers to identify and reduce potential security vulnerabilities and threats for 5G Core. Analyzed pcap files using Wireshark on a live 5G network core protocol. Performed Testing using multiple fuzzers on Open5GS and Free5GC to check system against unexpected inputs.

Tarot: weaving stories | *GitHub*
- Developed a RESTful API with Flask for interactive tarot-based storytelling and enhancing 70% user engagement. Generated 80% similarity compared to original research paper results using a JSON Schema. Introduced features to draw 1 or 3 tarot cards for personalized and humorous Generated Text using AI, improving user experience.

JavaFeast: order management application | *GitHub*
- Designed a dining management application using Java, Hibernate ORM, and Apache Tomcat with Postgres DB in an MVC model that features 50% order handling and receipt generation, 30% of editing menu and applying discount.
- Efficiently got 95% accuracy in CRUD operations using Java Persistence API (JPA) and added 20% of history price update functionality with a price change of the product & Implemented unit tests covering 30% of the code with JUnit.