Kush Pandya

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Education

Master of Science in Computer Science — Jan 2020 - Present
Colorado State University — *Fort Collins, Colorado, USA*

Bachelor of Engineering in Computer Engineering — Jul 2015 - May 2019
Alpha College of Engineering and Technology — *Gandhinagar, Gujarat, India*

Technical Skills

Programming Languages: Java, Python, C#, C/C++, Kotlin
Web Technologies and Databases: React JS, HTML, CSS, SCSS, JavaScript, XML, Firebase, MySQL
Tools & Others: Android Studio, Blender, Git, Postman, Spring Boot, Unity 3D, Visual Studio Code

Experience

Graduate Research and Teaching Assistant — Aug 2022 - Dec 2022
Colorado State University (C#, Python, Unity 3D) — *Fort Collins, Colorado, USA*

- Implemented Qualitative Spatial Relations(QSRs) between 3D objects to find geometric relations between them.
- Incorporated Allen's Interval Algebra and Region Connection Calculus 8 to construct a novel data set to train models.
- Achieved embedding spaces by building a data set and training a neural network based on machine learning.
- Provided support to 107 graduate students (Engaging in Virtual World) by creating virtual reality projects in Unity3D.

Software Engineer, Android — Jul 2019 - Dec 2019
Versatile Technolabs PVT. LTD. (Java, Kotlin, XML) — *Ahmedabad, Gujarat, India*

- Proficient in using Android components like Activities, Services, Broadcast Receivers, Google Maps, JDBC, JSON, XML, etc.
- Designed a monitoring application for parents to monitor activities on their Child's mobile and if necessary restrict activities.
- Developed an efficient vendor monitoring application to track the status of work of the employee with the help of photos.
- Implemented and deployed some other applications like Christmas Countdown, E-commerce application, EMI calculator.

Software Engineer Intern, Android — Jan 2019 - Jun 2019
Aimcrafters Software PVT. LTD. (Java, Kotlin, XML) — *Ahmedabad, Gujarat, India*

- Developed an online appointment booking application for a barbershop that manages appointments, and walk-in customers.
- Reduced memory leaks by using fewer static references resulting in a 10% increase in the application optimization.
- Learned and developed a few advanced user interfaces, strong application structures, and REST API integration into use.
- Modified the data access layer during data migration from MySQL to make the application 12% more efficient and optimized.

Projects

Fashion E-commerce Web Application (React JS, Firebase) Source Code — Aug 2021 - Oct 2021

- Developed and deployed a highly available E-commerce web application for online shopping men's and women's wear etc.
- implemented user-authenticated sign-in and sign-up processes, add-to-cart functionality, and Stripe API payment setup.

Movie Recommendation System (Python, PySpark) Source Code — Sep 2020 - Dec 2020

- By using Collaborative Filtering based on reviews and movie preferences, a movie recommendation system was updated.
- On the MovieLens data set, using Spark with PySpark API, the memory-based method produced an RMSE of 0.91.

Parental Control Application (Java, Kotlin, XML) — Oct 2019 - Dec 2019

- To monitor children's device activities, I developed a parental control service application that works well on mobile devices.
- Application can track and limit how much time they spend using smartphones or age-inappropriate sites and apps.

Voting Application (Java, XML, Firebase) — Feb 2019 - Apr 2019

- Designed and developed a highly consistent online voting application with fingerprint verification to authenticate the user.
- Integrated fingerprint hardware device to make the application more resilient across all android based smart devices.

Augmented Furniture (Java, XML, ARCore, Firebase) Source Code — Aug 2018 - Dec 2018

- Developed an interior design application using Augmented Reality to predict how furniture will look before purchasing it.
- Implemented 3D virtual replicas of the furniture in the user's house or workplace using the augmented reality library ARCore.