Pranav Bellam Prasad

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PROFESSIONAL EXPERIENCE

The Research Foundation, State University of New York   May 2023 – present | Buffalo, USA
Senior Research Assistant
- Collaborating with **Dr. Yu-Ping Chang** ⧉ and a multidisciplinary research team from **UB School of Nursing** to design and develop innovative iOS apps aimed at enhancing mental health care for patients.
- Created configurable themes for improved user interaction and inducing calmness.
- Implemented 2-factor Authentication and encrypted chat for secure communication with Provider.
- Innovated an audio player with calming video backdrops, aiding in stress reduction through mindfulness assets.
- Developed daily check-in and goal-setting features for patient empowerment.

Tech Stack: Swift, SwiftUI, UIKit, AVKit, Firebase, Node.js, MongoDB

Rakuten, Inc.

Associate Software Engineer   Aug 2020 – Jun 2022 | Bangalore, India
- Designed and implemented Rakuten PointCard Partner payments SDK, integrating secure-auth login, device checks, keychain operations, and unique barcode authentication for seamless and secure payments.
- Engineered "Fraud Measure" to enhance payment authentication in the Rakuten PointCard iOS app.
- Developed card management screen for adding/scanning credit cards.
- Enhanced home screen UX with a movable bottom sheet showcasing latest promotional campaigns.
- Implemented an In-app messaging feature for easier communication.
- Awarded "Rakuten Excellence Award" for impactful contributions to Rakuten Payments. ⧉

Tech Stack: Swift, Objective-C, Xcode, CocoaPods, Git

Technical Intern   Jan 2020 – Jul 2020 | Bangalore, India
- Setup the Apache OpenWhisk serverless infrastructure on Rakuten's OneCloud platform.
- Designed and developed a highly scalable static page handler for the Rakuten PointCard website using Serverless computing.
- Improved the throughput by 30% and supported high traffic volumes on the website during Rakuten campaigns and super sales.

Tech Stack: Javascript, Node.js, React.js, Docker, Apache OpenWhisk

EDUCATION

MS in Computer Science and Engineering   Aug 2022 – Present | Buffalo, New York
State University of New York at Buffalo ⧉
Courses: Data Intensive Computing, Algorithms, Blockchain, Information Retrieval, Machine Learning
CGPA: 3.67/4.00

B.E. in Electronics and Instrumentation Engineering   Aug 2016 – Jul 2020 | Bangalore, India
R.V. College of Engineering ⧉

SKILLS

Programming Languages
Python, Javascript, Swift, Objective-C, Java

Web Frameworks/ Libraries
Node.js, Express.js, REST, Flask, Pandas, Swift UI, UIKit, Firebase

Web Technologies
Git, Docker, Google Cloud, Hadoop, Spark, SaaS, FaaS, Apache OpenWhisk, Apache Solr

Databases
MySQL, MongoDB, Firebase Realtime DB, Firestore

PROJECTS

IBM - Data Volume Reduction | Django, Python, Docker, IBM Cloud   Feb 2023 – May 2023
- Designed a robust system to reduce the bandwidth requirement for the user, by performing data volume reduction on a docker container running on a FaaS(Function-as-a-Service) cloud platform.
- Demonstrated satellite image data size reduction through lossless compression, and featuring highly customizable and dynamic metadata-based filtering.
- Collaborated with IBM Fellow and IBM Research Chief Scientist **Dr. Dinesh Verma** ⧉

Multi-Topic IR chatbot | Python, Flask, Apache Solr, Tensorflow ⧉   Aug 2022 – Jan 2023
- Developed an end-to-end Information Retrieval chatbot capable of carrying out 15+ turns of coherent utterances.
- Indexed 200k+ multilingual Reddit data in Apache Solr for use as a chatbot dataset.
- Utilized pre-trained BERT model for Chitchat and Reddit data classification, determining the top 20 document similarities for user queries, and generating responses.