ASHWIN UNNIKRISHNAN

+16174127147 | unnikrishnan.a@northeastern.edu | linkedin.com/in/ashwin-unnikrishnan/

EDUCATION

Northeastern University, Khoury College of Computer Sciences, Boston, MA   4.0/4.0
MS in Artificial Intelligence   Expected December 2023
Course Work : Pattern Recognition and Computer Vision, Algorithms, Foundations of AI, Machine Learning.

National Institute of Technology Warangal, Telangana, India   8.38/10
M Tech Computer Science And Information Security   April 2017
Course Work : Advanced Algorithms, Computational Number Theory, Data Mining, Distributed Systems.

Government Engineering College Kottayam, Kerala, India   7.39/10
B Tech Computer Science And Engineering   April 2014

TECHNICAL KNOWLEDGE

- Languages: Python, C++, Perl, C#, SQL, Kotlin.
- Frameworks/Libraries: PyTorch, Keras, TensorFlow, Scikit-Learn, Natural Language Toolkit, OpenCV.
- Others: Version Control (Git), Jenkins, Anaconda, Eclipse, IntelliJ IDE, Android Studio.

EXPERIENCE

QUALCOMM INDIA PRIVATE LIMITED   Hyderabad, India
Senior Engineer   July 2017 - February 2021

- Headed a team of 7 engineers in the IoT platform stability team responsible for testing platform stability of IoT chipsets at Qualcomm. Collaborated with product managers and customer engineering and deliver products and results on time.
- Enhanced an inhouse chatbot by providing a Natural Language Processing interface. The queries are classified using Multinomial Naive Bayes classifier to one of the existing API calls. The interface saved 20% of the users time, fetching details.
- Designed and developed an auto code maintenance tool using q-learning for maintaining GUI-related test-cases for a smartwatch. Helped identify false errors and helped reduce close to 10% of the bandwidth spent on maintaining GUI test cases.
- Designed a cross-platform task automation tool to assist manual testers in storing commands based on task, updating commands on the fly, and making the tool customized based on requirements. Tool improved manual testing speed by 40%.
- Created NLP-based search tool to identify duplicate bug tickets raised. Reduced the creation of duplicate tickets by 70%.
- Optimized device utilization by programming an automated job triggering framework, would kick start test runs when at night when devices are not in use across device farm. Device utilization was increased by almost 30%.
- Constructed a makeshift robotic arm operating a step motor, and programmed it to replicate walking, jogging, swimming movements for pedometer testing on smartwatches. Simulated real use-cases and improved testing efficiency by 10%.
- Devised and implemented a generic test framework for the platform stability team for IoT chipsets. Test cases are written as assembly language, assembler in framework translates commands into respective functions in framework.
- Guided new joinee by mentoring and organized team talks on how to prepare report and present data in meetings for different projects.

PROJECTS

- Profiler: Automatic detection of profile type (Sports, travel, food, etc) based on the objects seen across all the images in a profile. Helps the user to get a quick summary of type of photos or contents being posted by an Instagram user.
- M-Care IoT Based Healthcare System: Prototyped a secure and privacy preserving healthcare system prototype, considering computational constraints of wearable devices. Implemented it using sensors attached to arduino boards.
- Burglar Alarm System: Created an intranet burglar alarm system for hostel rooms in a corridor, accomplished using an Arduino.
- Developed a Dynamic Bayesian Network classifies if pixel belongs to vehicle or not, and performs aerial surveillance of vehicles.

ACHIEVEMENTS

- Awarded Qualstar for developing NLP interface for an in-house generic chatbot, leveraged across multiple teams in Qualcomm.
- Orion Insta Spot awardee for smooth and seamless transitioning of IoT Platform Stability team.
- Secured All India Ranking 183 in 9th National Cyber Olympiad (IEO 2010).
- Captain of the school and the varsity football team.
- Volunteered as a soccer referee for the "Just for Kicks" soccer tournament. The organization focuses on enabling leadership among young school students through soccer and identify young talents.