

PAVAN KUMAR RAJA

+1 (480) 2786 143 | [praja3@asu.edu](mailto:p raja3@asu.edu) | pavanyyf@gmail.com | [linkedin.com/in/pavan-kumar-novfourteen](https://www.linkedin.com/in/pavan-kumar-novfourteen) | github.com/Pavan-pk

SUMMARY

Highly capable and technically sound seasoned Software Engineer with experience in creating and building solutions that scale to support millions of users daily. Curiosity-driven, self-motivated, and adept at driving projects from conception to implementation. Well-versed at building Software systems, Deep Learning (NLP & computer vision), Artificial Intelligence, and collaborating with analysts and designers.

EDUCATION

Arizona State University Tempe, AZ
Master of Science in Computer science. GPA – 3.78/4.0 Anticipated graduation May 2023

- Relevant coursework: Foundations of algorithms, Natural language processing (NLP), Deep learning, Artificial Intelligence, Knowledge representation and reasoning in AI.

R V College of Engineering (Affiliated to VTU) Bangalore, India
Bachelor of Engineering in Electronics and Communications. GPA – 8.43/10 July 2016

SKILLS

Languages: Python, C++, C, Java, JavaScript.

Frameworks and technical skills: PyTorch, reactJS, Android, Git, deep learning, Natural Language Processing.

Core Competencies: Process Improvement, Cross-Functional Collaboration, Data Analysis, Oral and Written Communication, Organizational Skills, Time Management.

EXPERIENCE

Software Engineer - Motorola Digital Account (MDA) August 2020 – July 2021
Motorola Mobility LLC Bangalore, India

- Secured web communication for MDA involving prototyping, architecture design according to OWASP standards, and multiple review sessions to eliminate risk across thousands of transactions.
- Designed instant payment methods for MDA (scan and gesture) involved prototyping, third-party verification, and development.
- Built a secure storage library on the android system to securely save logs, application metrics, and credentials reducing the risk of Privacy information leak during logs/metric upload and enabling biometric login.
- Responsible for reviewing code of other developments and applications in reactJs and Android to aid other areas of MDA to support rapid experimentation and development.

Software Engineer - Over-The-Air updates January 2018 – July 2020
Motorola Mobility LLC Bangalore, India

- Brought up virtual A/B updates on Motorola Android devices, reducing memory footprint by 40% and increased software update uptake rate by significant margin.
- Built suite of python scripts to extract prerequisites, analyze update mechanisms, and monitor software update state in virtual A/B devices, increasing efficiency of system architecture design process for new products.
- Led update generation architecture design and development, moved to object-oriented parallel processing architecture including support for multiple vendors and saving 30% in computational resources on build servers.
- Automated critical software update for Verizon carrier by leveraging Motorola's context awareness ML engine and pushing security update rate to 98% on Verizon devices.

Associate Software Engineer July 2016 – December 2017
Motorola Mobility LLC Bangalore, India

- Brought up seamless software update architecture into Motorola update devices and reduced return device margin by 90% and increased OS update rate from 70% to 90%
- Investigated latest advancements in compression techniques and integrated them into difference generator, resulting in package size reduction by 20% and cloud storage costs for each update by a significant margin.

- Contributed to bringing up block-based updates on UFS devices allowing Motorola android devices to have plasticity in partition layouts

Academic Projects

Github

- **Instruction Paradigm - An alternative to crowd sourcing:** Experimented prompt engineering on SOTA NLP models (GPT3 and T0_pp) to validate their capability to generate GLUE datasets (QQP and MNLI), and evaluated results on an NLP pipeline built using SentenceBERT.
- **RealismArtGan:** Experimented with CycleGAN architecture to translate real-life images to realism art style images and vice-versa and evaluated results using likeness score (LS) to gauge Creativity, Inheritance, and Diversity of generative network.

AWARDS AND RECOGNITION

Motorola Team Excellence Award

Recognition for design and implementation of seamless updates and 5G mod OTA.

Motorola Mobility LLC

2018 - 2019

MBG Bravo! Award

Organisational level individual recognition award, for my contributions in Virtual A/B updates.

Motorola Mobility LLC

August 2020