AMIT KUMAR
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EDUCATION
1. University of Southern California, Los Angeles (GPA: 3.67/4)   Aug 2019
  Masters of Science - Computer Science.
2. Army Institute of Technology, **Pune, India**   May 2016
  Bachelor of Engineering (Computer Science and Engineering)

WORK EXPERIENCE
1. USC Chan Division of Occupational Science (Research Assistant)   Feb 2018 - Mar 2019
  ❖ Responsible for developing backend servers(Rails, Java Spring) and frontend (ReactJS, Javascript, HTML) web applications and deploying them on AWS as a dockerized service.

2. MavenHive Technologies Pvt. Ltd., Bangalore, India (Software Development Engineer**)**   Jan 2017 – Dec 2017
  ❖ Worked in the GoFood team of GoJek -Largest online food ordering platform in Indonesia (600k orders/day).
  ❖ Developed new features and optimized the existing APIs for a better response time using in-memory database Redis, Hystrix for making fault tolerance APIs, Reduced the APIs **response time** from **110ms to 35ms**.
  ❖ Learned to deploy live backend systems using techniques like Canary deployment, Blue-Green deployment using HA Proxy for load balancing during deployments, database migrations, application versioning etc.

3. Commvault Systems, Hyderabad, India (Software Development Engineer**)**   Dec 2015– Jan 2017
  ❖ Responsible for building and maintaining new features for the Windows and Linux installer of their product, Simpana.
  ❖ Built multi-threaded application in Python to compile all the binaries and package them in a single executable.

4. GS Labs, Pune, India (Software Developer Intern)   Jan 2015 – Dec 2015
  ❖ Led and developed "Resource Monitoring of Docker Containers (Restful API)" (Github)
  ❖ Used HighCharts to plot live dashboards showing the live CPU/Memory/Network usage by containers.

TECHNICAL SKILLS
● **Languages/Frameworks**: Python, ReactJS, Java, Ruby On Rails, Javascript, Android, C\C++, HTML, CSS
● **Tools**   : Docker, AWS (EC2, S3, RDS, Fargate), Gitlab CI/CD, Flask, Pandas, TensorFlow, Hadoop,Spark
● **Databases**   : MySQL, PostgreSQL, SQLite, MongoDB, Firebase

PROJECTS
1. Tech Conference (Live Demo) | *RestAPIs, MongoDB, Slack APIs, Web Scrapping, Python, HTML, Javascript*   Feb 2017
Developed a web application which contains a list of the upcoming technical conferences in a particular region. Users could add new conference details, subscribe to the conference updates. This application also supports once click Slack app integration where you can query about conferences directly from the Slack app. **Note**: The web app is hosted at a free Heroku dynamo, so it might load a little slow in the first attempt.

2. Secure Logging-as-a-Service in Cloud (Github) | *Javascript, Public/Private Key Encryption, HTML, Python*   Dec 2015
A system to maintain confidentiality and integrity of logs generated by virtual machines in a cloud via cryptographic methods thereby incapacitating cloud service providers from counterfeiting logs.

3. Pipeline for Analyzing Lesions after Stroke (PALS) (Open Source Contribution) | *Python, Fsleyes*   May 2018
Led a cross-functional team of 3 researchers to build PALS, a scalable and user-friendly toolbox designed to facilitate standardized analysis and ensure quality in stroke research employing T1-weighted MRIs.

4. Mobile Banking Authentication System | *Java, Android, Steganography, MySQL*   July 2015
Aimed at enhancing security in communication between client and bank systems employing steganography techniques such as LSB, SLSB and Random Bit selected randomly at runtime to embed data into an image.

5. Self Driving Car Convolutional Neural Network (Github) | *Tensorflow, CNNs, Machine Learning*   June 2018
Created a Convolutional Neural Network using Tensorflow to determine the angle of rotation of the steering wheel of an autonomous self-driving car. The model takes in the live video feed from the front view of the vehicle and can determine the angle by which the steering wheel should be rotated to follow the driving instructions.

ACCOMPLISHMENTS
● Pipeline for Analyzing Lesions after Stroke (PALS). Published at Frontiers in Neuroinformatics.
● Published a research paper on Resource Monitoring Of Docker Containers in the International Journal Of Engineering Development And Research.
● Google Play developer account holder and published more than 10 Android applications with over 200,000 application downloads on the Google Play store.
● Designed my own personal blog at https://amitasviper.github.io/