ABHINAV KHARE

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EDUCATION

Carnegie Mellon University - School of Computer Science *Expected 2020*
Master of Science, Computational Data Science *Pittsburgh, PA*
Indian Institute of Information Technology Allahabad 2015 - 2019
Bachelors of Technology in Information Technology with honors. GPA : 8.59/10 *Prayagraj, India*

WORK EXPERIENCE

Google Summer of Code 2019 with FOSSASIA Jun-Aug 2019
Software Developer
- Completed all aspects of devOps for FOSSASIA's deployment of an open event project, involving the transition from Kubernetes on GCP to Hetzner cloud in order to optimize costs.
- Achieved load balancing via NGINX and deployed a fastboot server to serve ember JS based frontend.
- Originated, created, and implemented auto-deployment pipelines for creating a continuous integration work-flow.
- Extensively worked with Postgresql to migrate data from legacy system with manual queries when migrations failed.

Temasek Labs, Nanyang Technological University Jan - May, 2019
Research Assistant (Software Engineering) *Singapore*
- Cultivated and designed pipelines for data flow for an Automatic Speech Recognition System.
- Generated speech REST APIs to introduced role based access to the Automatic Speech Recognition System.
- Devised a role-based rich transcription text editor and re-speak module bound into a web service implemented in flask.

SmartMe.io – Universita degli studi di Messina May-July 2018
Research & Development intern *Messina, Italy*
- Replaced CKAN based centralized data store of SmartME Project with pioneering database tech - BigchainDB
- Engineered a new decentralized storage architecture to accumulate data point readings from IoT Sensors spread across the city of Messina along with a novel data source verification mechanism based on Ed25519.
- Published in IEEE 28th International Conference on Enabling Technologies: Infrastructure for Collaborative Enterprises

Google Summer of Code 2017 with FOSSASIA Jun-Aug 2017
Software Developer
- Developed and established flask framework programming fundamentals as part of the event organization server for FOSSASIA, concentrating on normalization of database schema.
- Streamlined the processes around decoupling of JSON API Spec back end based on Flask and Postgresql.
- As a project leader, oversaw the integration of the newly developed front-end with new JSON API Spec API server.

SELECTED PROJECTS

Regression based Motion Planning for Robot September 2017
Indian Institute of Information Technology Allahabad
- Developed and launched a neural network which could train a robot (p-150 Amigo bot) to navigate obstacles and reach its goal utilizing both reinforcement learning and supervised learning, ultimately comparing the two approaches.
- Achieved publication for the experiments in the 3rd Asia-Pacific Conference on Intelligent Robot Systems (ACIRS), IEEE.

Wikipedia pageviews data analysis September 2019
Carnegie Mellon University
- Aggregated daily pageviews of various articles available into monthly views using Apache Hadoop mapReduce framework while using Terraform to orchestrate and manage virtual machines and EMR clusters on Amazon's AWS platform
- Adopted Python Data Analysis Library (pandas) to solve some query based data science problems.

SKILLS & INTERESTS

Languages & technologies: Python, C, C++, HTML, Javascript, PHP, SQL, Java, Swift ,Docker, GCP, Kubernetes, Azure, adobe Photoshop, NumPy, Pandas, Keras, Tensorflow, Ember JS, Angular JS, Flask, React JS, Apache Hadoop
Open Source: Lead Google Summer of Code 2018 mentor for the Project . Google Code in 2017,2018 Mentor for FOSSASIA. Project maintainer for Open event at FOSSASIA.

HONORS & AWARDS

- Dr. Ing. Matthias Kleiner Gold medal: Overall performance in Academics, and contributions to the technical community.
- Linux Foundation Scholarship: 800 USD sponsorship to attend Open Source Summit 2019 in Japan.
- Google Summer of Code Mentor summit: $1000 travel grant to attend the summit at google California as the lead mentor.