Mohammed Haseeb Ur Rahman

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SUMMARY: I am a computer science grad student seeking opportunities as software intern for summer 2020. I have 3 years of experience in web development, passion for coding, strong foundation in data structures and algorithms, skills to implement them.

RELEVANT EXPERIENCE

Deloitte Touche Tohmatsu Limited **Hyderabad, India**

Consultant (DevOps lead and System Administrator) *Aug 2016 – July 19*

Responsible for managing and maintaining production servers including deployments of a multi-regional website with over **3 million visits** per month and over $4 billion annual sales. Additional responsibilities included source code management, system monitoring, automation, content management, installation (Sonar, Hybris, Jenkins etc.) and documentation.

- Automated, scheduled and managed deployments on dev, QA, stage and production servers (**50+ servers**), cloud and on-prem servers, for top jewelry site with content available in 20 countries/languages
- Developed an efficient deployment process using pipeline integrations and **increased the efficiency by 40%**
- Worked in **Agile** projects – Was involved in sprint planning, story estimations and creating user stories
- Received an official recognition from manager and an **Outstanding award** in 2017 – awarded to **top 100** of the 15000 employees

International Institute of Information Technology (IIIT-H) **Hyderabad, India**

*NLP Research Intern at **Anusaaraka*** *May 2014 – July 14*

- Worked on a **Machine Translation System** (English to Hindi) using **Natural Language Processing** Techniques
- Input text is passed through word analyzer to produce its root(s) and grammatical structures, which are then used for translation
- **Created over 100 rules** describing the translations for text with ambiguous semantical structure (synonyms, hyperboles etc.)
- Used C++, Python, Bash scripting to program and run translations on Anusaaraka

EDUCATION

Arizona State University – MS (GPA: 3.78/4.0) **Tempe, AZ**

Master of Science in Computer Science (HCI, Data Visualization, Foundations of Algorithms) *(Expected) May' 21*

National Institute of Technology, Trichy – B.Tech (GPA: 7.0/10.0) **Trichy, India**

Bachelor of Technology in Electronics and Communication Engineering *May 2016*

SKILLS

Languages and frameworks: Python; R; MySQL; C++; Java; JavaScript; CSS; React; D3.js; Node.js; RESTful APIs

Operating Systems and Env: CENTOS; Ubuntu; Windows; macOS

Tools and Technologies: Tableau; Axure; GIT; AWS; Google cloud (GCP); Google Analytics; Jenkins; Jira; Adobe Suite; Docker

CERTIFICATIONS:

- TensorFlow in Practice Specialization (**Google Brain** and **deeplearning.ai**) *Jan 2020*
- Algorithm Specialization – Advanced algorithms, design and analysis (**Stanford**) *Dec 2019*
- Machine Learning with Tensorflow on GCP (**Google Cloud**) *Oct 2019*

SELECT PROJECTS

Asteroid Blaster – My take on the classic Asteroid game, developed in vanilla JavaScript (JavaScript, CSS, HTML, Visual Studio)

- The game uses key-down and key-up event handlers to navigate the spaceship as well as fire laser beams
- Collision detection is implemented in order to explode the ship upon impact with asteroid.
- Laser beams will explode on collision with asteroids and will split the asteroid into smaller asteroids

Fairness in Machine Learning – Eliminating bias in recidivism prediction (Python, D3.js, matplotlib, excel, Tableau, Spark)

- The model uses recidivism prediction data by COMPAS algorithm (in Broward county, FL) used for probation and parole hearings
- Goal was to detect underlying bias in the predictions and calculate the fairness index over sensitive attributes (race, gender etc.)
- Data analysis was done using Excel, Spark and Tableau; Matplotlib and JavaScript libraries (D3.js) were used for visualizations
- Created Generative Adversarial Neural Network (GAN) using Tensorflow, Numpy, SK-learn to predict sensitive attributes from given data; Objective was to minimize this leakage while still retaining recidivism prediction accuracy
- GAN network increased racial fairness index **from 44% to 78%** while having only a slight decrease the prediction accuracy (~10%)

Autonomous Driving – Car detection using Deep Learning (Python and Jupyter Notebook for coding, matplotlib for visualization, Git)

- Created a deep learning model using Keras and TensorFlow to detect cars in the frames of video draw a boundary around them
- Car detection model was built on top of a pre-trained model, YOLO (you only look once) model, for real-time object detection
- The algorithm modifies the image into grids and the model calculates probability of car like features in each grid using ConvNets
- Overlapping boxes are resolved by using Intersection-over-Union which retains the box with highest probability

Awards and Achievements

- Received scholarship and award from Govt of India (2012-16) for ranking 1100 out of 1.2 Million participants in AIEEE exam
- Received official recognitions and multiple awards from Deloitte leadership (Outstanding award, Applause award, Spot award)