Gaurav Ajariwal

SOFTWARE ENGINEER

☐ (610)-202-6522 | ✉ Gauravajariwal.11@gmail.com | 🏠 www.gauravajariwal.com | ⌂ gauravajariwal11 | 𝐢𝐧 gauravajariwal11

"The people who are crazy enough to think they can change the world are the ones who do. -Steve Jobs"

Education

The University of Texas at Arlington   *Arlington, TX*

B.S. IN COMPUTER SCIENCE   *Aug. 2017 - May. 2021*

Notable Coursework: **Machine Learning, AI**, Calculus 3, Linear Algebra, Statistics and Probability, **Data Structures and Algorithms, Advanced Data Science**, Computer Networks, **Operating Systems, Object Oriented Programming**, Fundamentals of Software Engineering, Databases.

Professional Experience

MIND-MIND RESEARCH (UTA)   *Arlington, TX*

UNDERGRADUATE RESEARCHER   *Oct. 2019 - Present*

- Investigated the relationship between 2 variables: **expressions of dementia by patients and the severity of dementia** using **Deep Learning**. The project was supervised by 2 academic professors
- Integrated 2 pre-trained facial expression recognition model to extract the facial expression of the subjects using Convolutional Neural Network and SVM. **Scientific paper: Facial Expression Recognition using Convolutional Neural Networks: State of the Art**
- Developed an Android application using **TensorFlow Lite** to perform on device interfaces
  Advanced Skills: Machine Learning, AI, Research, CNN, SVM, Facial Recognition, Android, TensorFlow

UNIVERSITY OF TEXAS AT ARLINGTON   *Arlington, TX*

SUPPLEMENTAL INSTRUCTOR   *Aug. 2018 - Present*

- Conducted **50+** group and individual sessions teaching **C++** and concepts of **Object-Oriented Programming**

AIESEC   *Siberia, Russia*

WEB DEVELOPER   *Mar. 2017 - May. 2017*

- Managed websites of 5 clients and presented weekly reports related to bugs and functionalities of the website. Utilized **JavaScript, CSS, HTML, Python, Flask, and Django** for web development
- Led a team of 6 people to develop websites for 4 clients and streamlined web traffic by 90%
- Analyzed the information related to 5 startups in Russia and presented a coherent report to the leadership
  Advanced Skills: Web Development, Programming, JavaScript, CSS, HTML, Python, Django

Projects

T-Mobile Rescue– Winner at T-Mobile Hackathon

- Built an end-to-end T-Mobile Rescue application using **NLP and Collaborative filtering** to help thousands of T-Mobile users and Customer Service representatives **(pytorch, TensorFlow Lite, iOS-Swift)**

Digital Well Being– Winner at HACKUTA

- Created state-of-the-art architecture comprising of a **hybrid CNN and a bi-Directional LSTM** to detect 10,000+ fake news
- Modeled a fake image detector using CNN **(Python, pytorch, TensorFlow; Developed for iOS and Android users)**

BookItUp

- Created an application for **2,000+ university students** to sell or buy used coursework books
- Assembled the app in **Android Studio** using Java, **Firebase, and ML kit** to add Machine Learning features in the app
- Implemented the idea of **classified advertisements** application, like Craigslist for Android apps
- Designed 4 **ML vision features** to scan barcodes on books to extract the details. Used **Google Books** as a database to search books

Forgotten Shards

- Designed and built an AR mystery game in Unity integrated with **MapBox API** and **C#**
- Implemented **Hector SLAM algorithm** to improve the efficiency and accuracy of placing 3D objects by 10%
- Forged an Interactive **GPS-enabled** app that motivated 100+ users to go out and interact with physical world

Technical Skills

Programming: **Python, C, C++, Java,** HTML, CSS, Javascript, Jquery, Bootstrap, **Data Structures and Algorithm, REST APIs, Flask, Django,** JSON, ReactJS, NodeJS, **Numpy, Matplotlib, Scipy, sklearn, Tensorflow, Keras, Pytorch, FastAI, OpenCV,** Kubernetes, **AWS, GCP,** Git, Bash, CMake, Gmake, GTKMM, pkg-config.

Platforms and Tools: **Spark**, Hadoop, Airflow, **Kubeflow, Kubernetes,** Google Cloud, Tableau, VScode.

Database: NoSQL (MongoDB, DynamoDB), SQL (MySQL, PostgreSQL)

Machine Learning: **Linear Regression, Logistic Regression,** KNN, Naive Bayes, **SVM,** Bagging & Boosting (ensemble), **PCA, SVD,** regularization, accuracy measures, **Statistical analysis and modeling**, **Random Forest,** knowledge of end-to-end machine learning pipeline, Gradient Boosting, Classification Modelling, **Data Visualization.**