

# Arslan Kazmi

Computer Science graduate seeking entry level Research position.

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📍 Lahore

## EDUCATION

### Bachelor of Computer Science

#### NATIONAL UNIVERSITY OF COMPUTER & EMERGING SCIENCES (FAST-NU)

09/2012 – 06/2016

Lahore

- CGPA 3.40
- Dean's List in Fall 2012, Spring 2014, Fall 2015 (GPA > 3.5)

## PROJECTS

### Urdu Digit ASR (06/2017 – Present)

- Helped train and implement Urdu-language digit Automatic Speech Recogniser using Kaldi ASR toolkit and Python
- Hidden Markov Model - Gaussian Mixture Model based acoustic model trained on telephonic speech
- Data used includes Debit Card Number, Expiry Date, National Identity Card Number datasets

### 3torrent (04/2017 – 07/2017)

- Homebrew Bittorrent client for Nintendo 3DS using devkitPro, ctrulib, and C.
- Bencode library written in C
- Following basic Bittorrent specification
- Concurrent peers limited to 15 to run on 3ds' limited hardware and threading support
- Network TCP connections made using ctrulib and 3ds WiFi hardware

### Smart Parking System (Final Year Project) (09/2015 – 05/2016)

- A system that directs incoming users to closest available parking spots, detecting free parking spots through processing on CCTV camera feeds.
- Contains 3 modules: Admin, Server, User App
- Admin creates/updates parking maps (C++).
- Server handles runtime requests for closest available parking space locations (C++, PHP) as well as runs free parking space detection algorithm (MATLAB) on images from live parking lot CCTV camera feeds.
- User App, a mobile app that automatically loads and displays a map with directions to the closest parking space, which it receives from the Server (Android, JAVA)

### YAL Compiler (10/2015 – 11/2015)

- Simple LL(1) parser based compiler which reduces a C-like language to pseudo-assembly low-level code. Also implemented a virtual machine to run said compiled code.

### Vontage (04/2015 – 05/2015)

- Pinterestlike social media app allowing sharing/saving of short video clips as well as picture. Created for the Android mobile platform using Android Studio, Java, PHP, and MySQL

### Product Reviews Sentiment Analyser (02/2015 – 03/2015)

- Classified Amazon.com product reviews as negative, positive, or neutral using artificial neural network implementation of a sentiment analyser.

### Clock Time (09/2014 – 10/2014)

- Reading of clock time from analog clock face image using Hough Transform to detect clock hands, implemented using MATLAB.

## PLATFORMS

Android

Cocos2dx

SFML

NodeJS

ExpressJS

AWS

SalesForce

Kaldi-ASR

MATLAB

## ORGANISATIONS

Center For Language Engineering (KICS-UET)  
(06/2017 – Present)

## RESEARCH

\* Real Time Water Rendering

\* Extraction of Planar Geometry from Video for SLAM

\* Blockchain Applications using HyperLedger

## ONLINE COURSES

Coursera - Machine Learning (Stanford University)  
(10/2017 – Present)

*Learned machine learning concepts including Linear Regression, Gradient Descent, and Neural Networks.*

Edx - CSE167x Computer Graphics (UC San Diego)  
(09/2017 – Present)

*Created a 3d model viewer as well as a Ray-tracing Engine*

## SKILLS

C	●	●	●	○	○
C++	●	●	●	●	●
Java	●	●	●	●	●
SQL	●	●	●	○	○
HTML	●	●	●	○	○
Android	●	●	●	●	○
NodeJS	●	●	●	○	○
ExpressJS	●	●	●	●	○
Python	●	●	●	○	○

## INTERESTS

Computer Graphics

Computer Vision

Machine Learning

Augmented Reality

Virtual Reality