

## PERSONAL INFORMATION

## Muhammad Yaseen



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### Skills Summary

Programming:

- **Python, C/C++, Java, C#, PHP**
- Web programming with PHP and ASP.Net MVC, HTML, CSS, jQuery

Machine Learning / Deep Learning:

- **TensorFlow, Keras, Scikit Learn, Spark MLlib**

Big Data:

- Apache Hadoop, Apache Spark, Apache Flume, Apache Hive

## WORK AND RESEARCH EXPERIENCE

Dec 2016 – Present

### Machine Learning Engineer

**Gaditek**, Karachi (Pakistan)

At Gaditek I am working on data related to a cyber-security product: **PureVPN** ([purevpn.com](https://purevpn.com)).

My responsibilities include:

- Data Analytics using Machine Learning techniques and ad-hoc reporting, presently focusing on customer segmentation and churn.
- Developing software infrastructure for data ingestion, storage, and analytics.
- Managing current Apache Spark cluster and Apache Flume deployments.

Achievements and Contributions:

- Deployment of Apache Spark cluster, currently in use for Machine Learning and reporting applications, serving DevOps, Marketing, and Customer Success teams.
- Developed server logs and event ingestion pipeline for Hadoop using Apache Flume. It is used by network service team for monitoring and load planning.

Jun 2016 – Aug 2016

### Research Internship

**Technische Universität Kaiserslautern**, Kaiserslautern (Germany)

The internship was carried out at **German Research Center for AI**. During my internship I learned:

- Frameworks and libraries for ML e.g. TensorFlow, Keras, RapidMiner.
- Machine Learning techniques including Long Short-Term Memory Networks for sequence-to-sequence learning, and Neural Networks for regression and classification
- Presentation skills, communication and working with multicultural/international teams in a technical and professional context.

Jun 2015 – Dec 2016

### Undergraduate Research Student

**Research Center for Artificial Intelligence**, NED University, Karachi (Pakistan)

At RCAI, I worked chiefly on following 3 Internet of Things inspired projects:

- **Smart Oximeter**: I worked on a Bluetooth enabled low-power oximeter which measures blood-

oxygen level and heart rate. My responsibilities included writing code (**C/C++**) for interfacing the hardware components and an Android app (**Java**) for operating device via smart-phone. ([web link](#))

- **Smart Warehouse:** I worked on developing a device which helps warehouse workers avoid accidental injury-causing encounters with automated heavy-machinery and tools. My work included writing code (**C/C++**) for hardware interfacing. ([web link](#)) ([post](#))
- **Smart Agriculture:** In this German Academic Exchange Service (DAAD) funded project, I was part of hardware design team and worked on developing hardware prototypes. ([web link](#))

#### Jan 2015 – Apr 2015 Undergraduate Research Student

**Electronics Design Center**, NED University, Karachi (Pakistan)

In Electronics Design Center I was responsible for:

- Hardware-Software interfacing, testing and debugging.
- Software development for embedded systems in **C/C++**.

#### Aug 2012 – Oct 2014 Remote Web Developer

I worked remotely on several freelance projects, my work included:

- Developing database driven web applications using Google Web Toolkit (Java), ASP.NET MVC, jQuery, PHP, HTML and CSS.

## EDUCATION AND TRAINING

#### Jan 2013 – Jan 2017 Bachelor of Engineering in Computer and Information Systems

**NED University of Engineering and Technology**, Karachi (Pakistan)

- **7th Position out of 148, Top 5%. CGPA 3.848 / 4.0**
- Related Courses:
  - Probability and Statistics, Linear Algebra, Calculus
  - Artificial Intelligence, Digital Signal Processing, Complex Variable and Fourier Analysis
  - Database Management Systems, Distributed Systems, Software Engineering
  - Object Oriented Programming, Computer Communication Networks
- **Received 4 years Scholarship** by Hamdard Foundation Pakistan for university studies.

#### Completed Online Courses

Studied following online courses to enhance my knowledge of Machine Learning:

- **Machine Learning** by Stanford University on Coursera
- **Bayesian Statistics** by University of California: Santa Cruz on Coursera
- **Deep Learning: RNN in Python** on Udemy
- **Introduction to Mathematical Thinking** by Stanford University on Coursera

#### 2011 – 2012 Higher Secondary School Certificate (Pre-Engineering)

- **Passed with 86.91%** and received certificate and medal of merit by the principal of college.
- **Received 2 years Scholarship** by Hamdard Foundation Pakistan for college studies.

#### 2009 – 2010 Secondary School Certificate (Science group)

- **Passed with 91.88%, 12th position in Karachi city.** Top position in the school.
- **Received cash prize** for merit from Board of Secondary Education, Karachi.

## MISC. INFORMATION

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### Communication skills

- **IELTS Overall 8.0 (Listening: 9.0, Reading: 8.5, Writing: 7.5, Speaking: 7.0)**
- Represented RCAI at several technology exhibitions, gave project demos and presentations at various forums.
- Was team lead for all my undergraduate group projects. I also worked in various student teams at RCAI consisting of Bachelors, Masters, and PhD Students.
- Experience of communicating and working with multicultural/international teams gained at DFKI and workshop in Dagstuhl, Germany.

### Honours and awards

- Won **National ICT R&D Fund award** for Bachelor's Final Year Project
- Among **top 10 scorers** in European Space Agency's ML related Mars Express Power Challenge
- Won **2nd Position** and \$500 at DICE exhibition and competition (2015) for Oximeter project.
- Won **1st Position** in Speed Programming competition while leading the team at University of Karachi.

### Opensource contributions

- Awesome ML (contributor) ([github.com/muhammadyaseen/awesome-machine-learning](https://github.com/muhammadyaseen/awesome-machine-learning))
- Apache Flume Plugins ([github.com/muhammadyaseen/flume-plugins](https://github.com/muhammadyaseen/flume-plugins))

### Additional Information

More information about myself, project presentations, and pictures are available on my Online CV webpage: [muhammadyaseen.github.io](https://muhammadyaseen.github.io)