

Afshan Aman

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Current Work Experience

May 2012 – to Date

New York University

Abu Dhabi, UAE

I am currently working as a Software Engineer/Data Analyst at the Center for Technology and Economic Development (CTED: <http://www.nyucted.org>) at New York University Abu Dhabi. Our focus of research is in the area of utilizing technology for economic development of the under-developed areas in Africa, mainly in the fields of agriculture and food production, and mobility of goods. As a senior technology and solution developer and data analyst for several projects, I work with a vast array of Engineering, Statistical and Geo-spatial computer applications and software packages. I manage the acquisition of large sized statistical, socio-economical, and spatial data using Android devices and Web interfaces, as well as analyses, visualization and report generation of said data using Web interfaces, STATA®, MATLAB®, and QGIS/ArcGIS®. I also design and develop dynamic Web-based analysis tools for the data provided by stakeholders or collected by team members in the field.

My role involves:

- Working on analysis of large sized statistical, socio-economical, and spatial data using STATA, MATLAB, and QGIS/ArcGIS.
- Developing Android applications for data collection in the area of agriculture and food transportation.
- Developing dynamic Web Applications using JavaScript, Node.js, and PostgreSQL/MongoDB for analysis of the spatial and socio-economic data collected using our Android apps or provided by external partners.

Specialties: Software Development; Full Stack Web Applications Development; Android Application Development; Geographic Information System (GIS); Data Analysis and Visualization.

Skills: JavaScript (ES6), jQuery, CSS3, Node.js v8.4, PHP, Vue.js, OpenLayers/Leaflet for Dynamic Web Development; Java for Android Application Development; STATA, QGIS for Spatial and Socio-economic Data Analysis; C/C++, Matlab® for embedded systems/research/scientific Application Development.

Interests: Big Data, Hadoop®, Amazon Web Services, and Tableau®

International Research and Development Experience

Jan 2010 – April 2011

Faculty of Engineering, University of Porto

Oporto, Portugal

- Worked as a researcher in the field of Urban and Regional Transportation Systems and Planning, studying the retail locations of selected sectors in the city of Oporto using spatial analysis and GIS for identifying interesting patterns and discovering and testing hypothesis.

April 2008 – Oct 2008

RWTH Aachen University, Germany

Aachen, Germany

- Developed a Web Portal for Conference registration and private and protected data management for the registered users using PHP and MySQL on Apache Server.

Jan 2004–Sep 2004

United Nations Development Program

Peshawar, Pakistan

- Managed the development of Provincial Government Web Portal and establishment of District Citizen Information Centers (DCIC).

- Supervised the construction and renovation work for establishing the DCIC. Handled all correspondence with contractors.
- Supervised regular data collection, processing, analysis and dissemination of information at district level
- Handled Procurement activities for different sub-offices, developing IT related specifications, inviting and finalizing tenders and issuing inspection reports as a subject specialist.
- As part of a team of experienced statisticians and ICT specialists and young professionals, identified information needs of the DCIC project, designed a system, using ICT (Information and Communication Technologies) for improved transparency and accountability of state functionaries and access of citizens to information.

Education

MSc, European Master in Informatics (EuMI)

Germany/Italy

2006 - 2008

- A double-degree Master's program from two lead European universities of RWTH Aachen, Germany and University of Trento, Italy
- Specialization: Embedded Systems Informatics.
- Thesis Title: '**Efficient Implementation of a Simple Platoon Controller using a Rapid Control Prototyping System**' which, simply put, is a longitudinal cruise controller, but in the context of a group of vehicles travelling together over a longer distance, such as a convoy of military vehicles or Cargo trucks.

Language Proficiencies

Main Language

English

Mother Tongue

Urdu, Pushto

Others (Read & Write)

German, Italian, Arabic

Publications

1. '[Experiences in designing a mobile GIS mapping tool for rural farmers in Ghana](#)'. Proceedings of the 4th Annual Symposium on Computing for Development, 28:1-28:2 (2013)

Contact Details

GitHub: <https://github.com/afshanaman81>

Portfolio: <https://afshanaman81.github.io>

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References

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