Bilal A. **Lodhi**
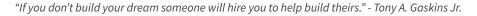
SOFTWARE ENGINEER · IMAGE PROCESSING AND AI EXPERT

27-3 Seongbuk-gu Jongam-dong Room B102, Rep. of KOREA

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"If you don't build your dream someone will hire you to help build theirs." - Tony A. Gaskins Jr.

Summary

I am an enthusiastic and professional, who enjoys being part of, as well as leading, a successful and productive team. I am quick to grasp new ideas and concepts, and to develop innovative and creative solutions to problems.

Work Experience

Data Mining and information System Laboratory, Korea University   *Seoul, S.Korea*

RESEARCH ASSISTANT   *Sep. 2011 - Feb. 2018*

- Designing and development of new architecture of Convolutional Neural Network (CNN).
- Proposed an efficient algorithm for cancer diagnosis in mammograms
- Efficient and accurate ROI generation, extracting a set of features (textural, statistical and frequency) and finally classification of masses.

ALPINION Medical Systems   *Seoul, S.Korea*

RESEARCH ENGINEER   *Jan. 2016 - Jan. 2017*

- I lead three projects, which were related to needle tracking, speckle noise removal and de-mosaicking.
- Platform was built and deployed in C, C++ and Python with a focus on frame rate , fault tolerance and false detection of the needle.

Bahria Enterprise Systems and Technologies   *Islamabad & Karachi, Pakistan*

SOFTWARE DEVELOPER   *Jun. 2006 - Jul. 2011*

- CRM software development (based on PhP, MySql, Ajax and SugarCRM).Developed software is for effective sale force, marketing, customer support services and order management
- Developed customizable reports, ticket management and mobile friendly version of the CRM

National Institute of Population Studies   *Islamabad, Pakistan*

SOFTWARE ENGINEER   *Jan. 2005 - May. 2006*

- I have worked on database and data entry program development for survey data.
- Experience efficient entry of the huge survey data, data cleaning and report preparation

Technical Skills

- Scientific expertise in the fields of machine learning, computer vision, pattern recognition, medical image analysis (segmentation, feature extraction, classification), computer aided diagnosis and discrete geometry processing
- Experience working in Python, TensorFlow and PyTorch
- Engineering expertise of design, implementation, optimization and integration of algorithms in C++, ITK, and Matlab.
- Experience working on web technologies, PHP, MySQL, JavaScript, XML, CSS and HTML.
    - Content Management Systems (CMS): Wordpress, Joomla and Dropal.
    - Web Customer Relationship Management (CRM): Sugar CRM and vTiger.
    - Shopping Cart Solutions: openCart, PrestaShop and Magento.
- Practical experience of working in R.
- Have practical experience of Data Warehouse using TERADATA.
- Ample knowledge of statistical Softwares, i.e. SPSS and CSPro.
- Hands-on experience of working on HADOOP and VOLDEMORT (Key-value data store).
- Sound knowledge of C/C++, OOP (Object Oriented Programing).
- Experience of designing database in SQL Server, and MS Access.
- Web Development experience in PHP, MySQL and ASP.NET.
- Development in Microsoft Visual Studio.

Education

Korea University   *Seoul, S.Korea*

PHD IN COMPUTER SCIENCE   *Sep. 2011 - Aug. 2019*

- Working on novel Convolution Neural Network (CNN) architecture for classification of objects in image.

NUCES-FAST   *Islamabad, Pakistan*

MS(CS) in Computer Science   *Jun. 2006 - Apr. 2009*

- Worked on image and video data segmentation.

Baqai University   *Karachi, Pakistan*

BS(CS) in Computer Science   *Jun. 2001 - Dec. 2005*

Honors & Awards

2008   **1st Place**, 2nd multi-topic graduate workshop in NUCES-FAST.   *Islamabad,*
                                                                                                                Pakistan

2008   **3rd Place**, multi-topic graduate workshop among multi-campus of NUCES-FAST.   *Islamabad,*
                                                                                                                Pakistan

Extracurricular Activity

Pakistani Students Association R.O.Korea   *S.Korea*

Election commission & Administrator   *Jun. 2013 - Jun. 2015*

- conducted e-elections for Pakistani students in all universities of R.O.Korea
- Deriving election rules and community building

Publications

- Publication's list will be provided if required. It is also available on the website.