Junaedur **Rahman**

Data Scientist · A.I. Developer

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"Background in Computer Science"

Summary

Expert Data Scientist and Developer with long, strong background in Computer Science. Extensive experience creating real world applications and open source projects. Expert on several frameworks, including TensorFlow, Keras, Theano, scikit-learn and PyTorch. Extremely passionate about programming, deep learning, and deep reinforcement learning.

Education

University of Western Ontario — *London, Canada*
PhD Candidate in Computer Science — *Current*

Kingston University — *London, England*
M.Phil in Computer Science

Hogskolan Dalarna University — *Borlange, Sweden*
M.Sc. in Computer Engineering

Ahsanullah University — *Dhaka, Bangladesh*
B.Sc in Computer Engineering

Experience

Densyfy Inc. — *London, ON*
AI Developer — *August 2017 - Current*

- Building a machine learning infrastructure for densified video processing based on computer vision, speech, audio, cyber physical systems, etc.
- Leading a team for developing an inhouse data center for creating specific dataset for specific purpose.
- Design and develop different machine learning systems, insights, and algorithms, and then prototype, deploy to production, and test them to ensure all client's business needs are covered.
- Developing a framework for validating the solution and manage overall software implementation lifecycles of projects, ensuring compliance with existing and future enterprise implementation standards.
- Optimizing algorithms and prototyping solutions for efficient implementation. Extending prototypes into fully functional, polished solutions ready for internal and/or external use. Supporting projects with thorough documentation of usage, design decisions and capabilities.

Kingston University and LG Electronics (Korea). — *London, UK*
Researcher — *January 2010 – April 2010*

- Embedded software development for cell phones, testing and performance evaluation of surveillance video analysis using C++ and web application using Java script.
- Designed experiments in the cluster for better processing in Linux OS using Eclipse.
- I have undertaken a course on mainframe server storage management system with practical hands on development experience.
- Developed an algorithm to evaluate the performance of the combination of local features of tracking objects for LG Electronics, Korea (Eclipse, Java, SVM).
- Designed and developed tools for detection and tracking articulate human motion in unconstrained scenarios using a single surveillance camera (C++, Boost, MATLAB, SVM).
- Designed and developed tools to track silhouettes in videos to solve nonlinear articulated pedestrian tracking problem (C++, Boost, MATLAB, SVM).
- Peer review of papers for 7th IEEE/IET/AAAI International Conference on Intelligent Environments, Nottingham, U.K., July 2011.

Areas of Interest

Deep Learning/Neural Networks, Artificial Intelligence, Computer Vision, Mathematical Modelling, Big Data Analysis, Network Analysis, AI Platform bulding, Distributed and Embedded Systems

Programming Tools

Programming Languages Python: 6+ years, Matlab: 8+ years, C++: 10+ years, JavaScript: 1+ years, Dart: 1+ years, C, Java, Prolog, Lisp, SQL, XML

Tools/Frameworks

Data Science: Tensorflow (python), Scikit Learn (python), Keras, Numpy, NetworkX (python), Theano PyTorch

Development: Git, Visual Studio Team Repository (c,c++), PostgreSQL

Relevant Skills

- More than 5 years of experience in programming language and algorithm design.
- Worked as a researcher of a team for software development and performance evaluation.
- Designed experiments in the cluster for better processing.
- Successfully maintained flow of product supply chain management locally.
- Involved in web based software quality testing and responsible for making marketing policies, improving the business areas for Microsoft products.

Professional Specialization

- Artificial Intelligence
- Computer Vision
- Machine Learning, Deep Learning and Big Data Analysis
- Pattern Recognition.
- Image Processing and Analysis
- Robotic Vision
- Intelligent System Software Development

Personal Projects

- Basic Darknet detector for the Canadian Traffic Light Dataset.
- RCNN framework for recognizing baseball actions in videos
- A Keras implementation of acoustic sound detector for laughter and clapping.

Publication(s)

- Md. Junaedur Rahman, Jesus Martinez Del-Rincon, Jean Christophe Nebel, Dimitrios Makris. Body pose based pedestrian tracking in a particle filtering framework. Submitted in MVA 2013, Kyoto, Japan.

Leadership and Teamwork

- Leaded a group of people to keep the flow of Microsoft products supply chain management in order.
- Organized a workshop in Multimode Group, Microsoft Division.
- Worked as a researcher in a team assisted on Software development and performance evaluation.
- Worked for Ahsanullah University of Science and Technology Alumni Association.
- Presided high school debating society and organized workshops to train present debaters who became champion on several television debating competitions.