


Sarah Shoilee

Contact

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 shoilee_portfolio

Technical Skills

♥ Python ★★★★★

advanced

C/C++ ★★★★★

advanced

Java ★★★★★

advanced

♥ Machine Learning

(Scikit-learn) ★★★★★

advanced

Data Mining ★★★★★

intermediate

Statistical Modeling

(R) ★★★★★

intermediate

Deep Learning

(Matlab) ★★★★★

intermediate

♥ Natural Language

Processing (Spacy) ★★★★★

advanced

Computer Vision

(OpenCV) ★★★★★

intermediate

SQL ★★★★★

advanced

Hadoop ★★★★★

intermediate

Spark ★★★★★

intermediate

LaTeX ★★★★★

intermediate

Strenth

Programming

Critical Thinking

Agile Team-work

Attention to detail

Languages

Bengali Fluent

English Business

Hindi Intermediate

About Me

A driven and energetic recent post-graduate from the field of Artificial Intelligence with a background in Computer Science. I flourish in environment that requires attention to details and critical analytical ability. Having a proven track record of academic excellence along with conference publications, I am passionate to expand my knowledge with advanced academic experience.

Education

2018–2020 **Master** in Artificial Intelligence [Katholieke Universiteit Leuven, Leuven, Belgium](#)
Specialization: Big Data Analytics (Grade: 61.96%)

2016–2017 **Master** on Computer Science and Engineering [North South University, Dhaka, Bangladesh](#)
CGPA: 3.91 (4.0), Summa Cum Laude

2012–2016 **Bachelor** Computer Science and Engineering [North South University, Dhaka, Bangladesh](#)
CGPA: 3.36 (4.0)

Work Experience (Academic)

2020 **UX Research Trainee (Feb-Jun)** [Digital Society School, Amsterdam, The Netherlands](#)
Project: Development of an inspiring and explainable digital platform to offer improvement and maintainability of a healthy lifestyle with help of AI (in collaboration with TNO)

- Designed web interface that explains the AI recommendations to make it more actionable for the end user
- Designed, conducted and analysed 3 user studies to understand acceptability and satisfiability of the proposed system.

2017-2018 **Research Assistant** [North South University, Dhaka, Bangladesh](#)
Project: Gender Research under Google's Next Billion Users Initiative

- Conducted 8 focused group interviews, leading 3 of them
- Projected solution which has the potential to increase google product usage by 10% among tech-users from Bangladesh

Project: Mobile Application for Breast Cancer Awareness

- Designed user interface which increased user satisfaction raising by 60%
- Performed user acceptance feasibility study that looked at sustainable solution from a cost, quality and technological perspective.

Lab-officer (Part-time)

[North South University, Dhaka, Bangladesh](#)

- Instructed and mentored 40 students on experimental design and execution on database management/digital logic design/web development
- Improved experimental efficiency by 40% reducing time and digitized assessments/experiment to reduce paper waste .

Publications

Islam, F., **Shoilee, S. B. A.**, Shams, M., Rahman, R (2017). "Potential Risk Factor Analysis and Risk Prediction System for Stroke Using Fuzzy Logic". In: *Artificial Intelligence Trends in Intelligent Systems. CSOC2017. Advances in Intelligent Systems and Computing*. Vol.573. Springer, Cham, pp.262–272

Reza, T. , **Shoilee, S.B.A.**, Akhand, S.M., Khan, M, M (2017). "Development of android based pulse monitoring system". In: *Proceedings of the 2017 Second IEEE International Conference on Electrical, Computer and Communication Technologies (icecct2017)*. Tamil Nadu, India: IEEE, pp.1428–1434.

Ahmed, N., Iftekhar, L., Ahmed, S., Rahman, R., Reza, T., **Shoilee, S.B.A.**, and Choudhury, C. F. (2015). "Bap re Bap!: Driving Experiences through Multimodal Unruly Traffic on Bumpy Roads". In *Proceedings of the 2015 Annual Symposium on Computing for Development (DEV '15)*. ACM, New York, NY, USA, 63-64.

Academic Projects

Mar-Aug'20	Master Thesis <i>Title: Knowledge Discovery on Spreadsheet using Semantic Information</i> <ul style="list-style-type: none">• Algorithm construction for formula rediscovery using semantic header information on poorly filed spreadsheet• Scientific demonstration and validation of proposed approach• Technique: Semantic analysis, Classification, Constraint Programming• Language: Python (<i>Library: Spacy, Scikit-learn</i>)	KU Leuven, Leuven, Belgium
Aug '19	Program Development <i>Project: San Francisco Taxi network data analysis</i> <ul style="list-style-type: none">• Trip analysis from fragmented trip segments and revenue generation• Technique: Map-reduce framework in both Hadoop and spark environment.• Language: Java	KU Leuven, Leuven, Belgium
Jul '19	Program Development & Analysis <i>Project: Performance analysis between logistic regression and very large decision tree in big data environment</i> <ul style="list-style-type: none">• Task: Class prediction• Technique: Logistic Regression & Very Large Decision Tree• Language: Java	KU Leuven, Leuven, Belgium
Jun '19	Experiment & Analyse <i>Project: Analyse different artificial neural network & Deep learning techniques</i> <ul style="list-style-type: none">• Experimentation with different setting, hyperparameter tuning and analyzing the nature of algorithm• Techniques: Hopfield Network, Time-series Prediction, RNN, LSTM, PCA, Autoencoders, CNN, Restrictd Boltzmann Machines, Deep Boltzmann Machines, GAN• Tool: Matlab, Python (<i>Library: Keras, TensorFlow</i>)	KU Leuven, Leuven, Belgium
Jun '19	Program Development & Report <i>Project: Image Classification and Segmentation</i> <ul style="list-style-type: none">• Image class prediction and pixel-wise image segmentation• Technique: Auto-encoder, Classifier(VGG-16), Convolutional neural network and convolutional transpose(FC-16)• Language: Python (<i>Library: Keras, TensorFlow, OpenCV</i>)	KU Leuven, Leuven, Belgium

Volunteer Experience

2014-2016	Red Crescent society : blood donor Inspired others and campaigned to encourage individuals to donate blood to save patients suffering from blood related diseases and personally donated blood 10 times
2012-2014	Mentor: Under-Privileged Children (UPC) education Mentored and coached 13 UPC with subjects such as physics, chemistry and mathematics; All students scored an average of 70% score in Secondary School Certificate (SSC) Exam
2012	Tree Plantation Campaigner Organised and managed 2 high school events that resulted into 100 new trees plantation

Reference

Dr. Samuel Kolb (Postdoctoral Researcher) <i>email: samuel.kolb@kuleuven.be</i>	KU Leuven, Leuven, Belgium
AbdelRahman Hassan (Researcher) <i>email: a.h.a.hassan@hva.nl</i>	Digital Society School, Amsterdam, the Netherlands