Ahmed Shariff

Avid artificial intelligence enthusiast; passionate to learn and contribute to the lore of Al. With a strong foundation in applying Al technologies to real life solutions. Seeking opportunities to better contribute to the realization of technologically enhanced human experience.



Work Experience:

July 2017 - Present

Research Assistant

University of Peradeniya

- Conducting research on deep learning based computer vision applications as part of an industry collaboration with codegen international.
- Completed prototype for a cashier assistant which uses deep learning.
- · Working with Nvidia Jetson platform.
- Under the supervision of Dr R.D. Nawarathna.
- Developed a machine learning pipeline: https://github.com/ahmed-shariff/ml-pipeline

| March 2017 - June 2017

Temporary Demonstrator

University of Peradeniya

- Conducted practical sessions (Programming concepts, Data structures and algorithms, computer architecture/assembly) for undergraduate students. The Medium of Instruction was English.
- Was part of the technical committee of the Postgraduate Institute of Science Research Congress, 2017.

October 2016 - January 2017 S

Software Engineering Intern

IFS R&D International

- · Gained experience working on internal software projects and tools used.
- Developed a tool to visualize dependencies between IFS software components.

Skills:

- Python, Java, C++, C, Common Lisp, C#, PHP, Javascript ,etc. and can't wait to learn more
- Extremely comfortable and interested in exploring new languages (programming and otherwise) and paradigms.
- Machine learning and deep learning (experienceed in pytorch and tensorflow)
- Wroked in computer vision, Natural language processing and dialogue systems.
- Strong communication, collaboration and leadership skills.
- · Well able to work independently and take initiative when necessary.

Publications:

Shariff, M.F.A. and Nawarathna, R.D. "A Dialogue Management Model with User Input Learning." Proceedings of the Postgraduate Institute of Science Research Congress 2017. (Abstract)

Shariff, M.F.A. and Nawarathna, R.D. "A Novel Dialogue Manager Model for Spoken Dialogue Systems based on User Input Learning" in SLAAI-ICAI-2018.

Educational Qualifications:

| 2013 - 2017 University of Peradeniya BSc (Special Degree in Computer Science)

- Presented thesis report of the research project as part of the final year course:
 GitHub: www.github.com/ahmed-shariff/dialog_manager
- Completed software project as a part of the credit requirement of the third year of the course: GitHub: www.github.com/ahmed-shariff/speech-recognition-framework
- **Designed an algorithm** for a mini project as a part of the module Image Processing: *GitHub: www.github.com/ahmed-shariff/simple-stereo-matching*
- Presented a seminar on quantum computing, covering the basics of quantum computing.

2017 English proficiency: IELTS

Overall band score: 8.0

Listening: 7.5 Reading: 8.5 Writing: 7.0 Speaking: 9.0

Research Experience:

- Developed a dialogue manager as part of the undergraduate course requirement
 - The model maps the user input to back-end directly using a classification approach.
 - Assumes the primitive for "meaning" in machines is functions.
 - Tested using Naive bayes and maxent.
- Automating various facets of restaurant as part of current project
 - Developed prototype restaurant cashier automation(uses deep learning and computer vision)
 - Experimented with broad range of different approaches:
 Classification and object detection for identifying food
 Regression and object detection for amount/count
 - Addressed problems such as:
 - * Optimal data and model that generalizes well and is accurate.
 - * The system design to ensure accurate and robust results in production environment.
 - * Development of pipeline for rapid experimentation and deployment of models.

Research Interests:

- Artificial General Intelligence.
- Combining the GOFAI and DL based AI.
- Adaptive intelligent systems.
- Theoretical understanding of deep learning.
- "Meaning" in the context of Al.

Other Interests:

- Traveling and meeting new people.
- · Nature and it's inner workings.
- The mystery of the mind.
- · Games (all kinds).
- Building stuff with my own hands.

Additional Information:

At St. Anthony's College I played hockey for the U-13, U-15, U-17 and U-19 teams. Held positions as the president of the Islamic Students Movement, chief editor of the Tamil Cultural Society, and also was part of the Interact Club, Global Linking Programme, and Sri Lanka Unites Programme, etc. I also was part of the debate team at the university of peradeniya and the drama team that took part in the drama competitions organized by dramatics society of the University of Peradeniya.