ARSHIYA KHAN

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EDUCATION

Ph.D. (AI + Cybersecurity)	University of Delaware, USA	GPA - 3.77	June 2019 - Expected May 2022
Master of Science (Cybersecurity)	University of Delaware, USA	GPA - 3.80	August 2017 - May 2019
Bachelor of Technology (CSE)	M.M.M.U.T., India	GPA - 3.84	August 2010 - June 2014

WORK EXPERIENCE

University of Delaware — **Newark, USA**

Graduate Teaching Assistant — February 2019 - Ongoing

- Coached 100+ students and mid-career professionals through 5 semesters as TA for cybersecurity courses
- Resolved technical difficulties faced by students during security app installation and hardening on Linux machines
- Created graduate courses spanning implementation of machine learning (ML) techniques to identify security issues

Women Plus Blockchain — **Remote, USA**

Backend and Analytics Developer — May 2018 - August 2018

- Installed 25 web crawlers with beautiful soup on AWS instances to collect articles from blockchain news outlets using AWS cloud console. Refined filters for relevant articles using keyword search techniques
- Streamlined automated reports from MailChimp API to improve interpretation. Incremented subscriber base by 17%
- Improved subscriber base by 150 by redesigning Google analytics dashboards by adding heatmaps, click maps

Tata Consultancy Services Ltd — **Mumbai, India**

System Engineer — September 2014 - April 2017

- Led application team of 5 members for support and maintenance of Airtel Money Mobile Banking platform
- Reduced cost of work by 90% by automating Business Intelligence reports using VBA.

TECHNICAL SKILLS

Languages:	Python, R, MATLAB, Bash, Java, C, C++
Frameworks:	PyTorch, TensorFlow, Transformers, Keras, Anaconda, Google Firebase, AWS, Git, JIRA
Tools:	OpenCV, PIL, Pandas, Numpy, scikit-learn, Matplotlib, NLP, Google Colab, Jupyter Notebook

ACADEMIC THESES & PROJECTS

- **Ph.D. Thesis (Present):** Evaluate novelty in open-ended evolutionary computation to discover generality (robustness) in Artificial General Intelligence (AGI)
- **M.S. Thesis:** Curated an Expansive Taxonomy Model for network traffic to perform ML based anomaly detection
- Developed a Sound classification model using 1-Dimensional CNN for classification of multi-tonal sounds. Delivered 96% accuracy by visualizing sound waves into time-series domain
- Achieved 91% accuracy on NLP based Twitter Bot Detection model developed on Naïve Bayes bag-of-words model

LEADERSHIP EXPERIENCE

- Spearheaded a team of 4 researchers at JPMC Data for Good Hackathon 2021. Designed and presented a forecasting model using logistic regression along with data augmentation techniques
- Chaired graduate peer mentoring organization at University of Delaware 2020-22 with 200 mentors and 350 mentees
- Pioneered local literature festival Litventure'15, Mumbai, composed book reviews and conducted author interviews

PUBLICATION

- Authored "Detecting Attacks on IoT Devices using Featureless 1D-CNN" for IEEE Conference on Cybersecurity and Resilience 2021. Focused on removing the dependence on domain experts for malware detection in network traffic