**ARSHIYA KHAN**

+1 (302) 317 6961 | arshiyak@udel.edu | <https://www.linkedin.com/in/arshiyak9> | <https://cybersecurit.github.io/>

**EDUCATION**

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| Ph.D. (AI + Cybersecurity) | University of Delaware, USA | GPA - 3.77 | June 2019 - Present |
| 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**

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| **University of Delaware**  Graduate Teaching Assistant | **Newark, USA**  February 2019 - Present |

* 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

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| **Women Plus Blockchain**  Backend and Analytics Developer | **Remote, USA**  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

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| **Tata Consultancy Services Ltd**  System Engineer | **Mumbai, India**  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**

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| 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

**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

**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