HUSNAIN AHMAD

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WORK EXPERIENCE

Lead Machine Learning Engineer - Data Science Division

Slash Next Inc. (US based)   Since July 2018

I am working as the technical team lead for the development of machine learning models while leveraging NLP, Generative AI and Computer Vision to detect and prevent spear phishing threats and BEC (Business Email Compromise) cyber attacks over Email, SMS and Web.

- Spearheading the design and implementation of an advanced AI system dedicated to proactively predicting and preventing targeted spear-phishing attacks in emails, achieving a 95%+ reduction in BEC incidents for production customers. This product boosted company revenues by multiple folds.

- Architecting AI modules for explaining anomalies within the detected malicious email stream for customer management systems.

- Developing state-of-the-art Computer Vision classifiers to detect anomalies in images leveraging image-similarity, encoding and feature matching algorithms with 97% recall with 99% precision in the live production environment.

- Overseeing the development and production deployments of Deep NLP models for Smishing detection

- Develop OCR backend using Tesseract and Google Vision APIs to yield textual dataset from the visual data stream.

- Leading the development of machine learning models for authorship profiling on emails using leveraging data augmentation and manipulation to detect user spoofing.

- Directing the design and development of a Brand Detection framework, harnessing the power of DarkNet engine and web APIs to ensure efficient and accurate identification of logos. Delivered actionable insights into the most targeted brands within North American markets.

- Leading the rollout and optimization of classification models for seamless integration into production systems, achieving 99%+ improvement in model performance and scalability.

- Curating a comprehensive and standardized data repository using Elastic Search encompassing textual, numerical, and visual features, empowering machine learning models with rich and diverse data sources for enhanced predictive capabilities.

- Conducting in-depth analysis and meticulous annotation of production data streams to unveil intricate patterns, facilitating data-driven decision-making and strategic planning for AI models finetuning.

- Collaboration with cross-functional teams, gathering requirements from stakeholders and documentation and designing of solutions while achieving project objectives.

Support and Integration Engineer

Concurrent Systems   Sep. 2016 - Jun. 2018

- Integration of software applications on production sites while ensuring limited impact on customer experience.

- Development of automated data pipeline and communication applications to monitor and report real-time software status to customer's Business Intelligence (BI) division for optimization and analysis.

- Handling customer support requests for troubleshooting and debugging production issues across services and multiple levels of the software stack as per service-level agreements between customers and the company

EDUCATION

National University of Sciences and Technology Islamabad, Pakistan
[Master of Science in Robotics and Intelligent Machines Engineering](#) Cumulative GPA: 3.67
Major Courses: - Robotics, Artificial Intelligence, Computer Vision, Digital Control Systems, Machine Learning and Pattern Recognition
Master Thesis: Multi-Modal Approach to Emotion Classification for a Socially Intelligent Robot Based on HHI

TECHNICAL STRENGTHS

Programming & Skills	Python, Tensorflow, PyTorch, Jupyter, LaTeX, Transformers, CNN
Software & Tools	Visual Studio, Git, Atlassian Suite, Postman, Linux

CERTIFICATIONS

- Deep Learning Specialization   [Coursera](#)

  - Neural Networks and Deep Learning   [Coursera](#)

  - Structuring Machine Learning Projects   [Coursera](#)

  - Convolutional Neural Networks   [Coursera](#)

  - Improving DNN: Hyperparameter Tuning, Regularization and Optimization   [Coursera](#)

  - Sequence Models   [Coursera](#)

- ChatGPT Prompt Engineering for Developers   [DeepLearning.AI](#)

- Convolutional Neural Networks in TensorFlow   [Coursera](#)

- Python the Big Picture, Python Track   Plural Sight

- Core Python: Getting Started, Python Track   Plural Sight

- Python Data Structures, Python for Everybody Specialization   [Coursera](#)

- Using Python to Access Web Data, Python for Everybody Specialization   [Coursera](#)

- Getting Started with AWS Machine Learning, Python for Everybody Specialization   [Coursera](#)

PUBLICATIONS

[Oizzu: A Bipedal Humanoid Robot Development Kit](#)
ICMLC 2017, Singapore   February 24 - 26, 2017
[Towards automated car repair bays: Geometric solution for kinematics of a two-post car lift system](#)
International Conference on Robotics and Artificial Intelligence, Islamabad   Nov. 2016
[Cost-based hierarchical energy efficient routing scheme for WSNs](#)
ICRAI-2016, Islamabad   Nov. 2016
[Design and manufacturing of a low-cost 2-DOF autonomous sentry gun](#)
ICRAI-2016, CEME, Islamabad   Nov. 2016
[A Comparison of Different Heuristic Inverse Kinematics Solvers](#)
2ND ICEET, Lahore   Apr. 2016

HONORS

- Member of **Sakura Exchange Program** by Japan Science and Technology Agency   2017