

# Faisal Jamil

MACHINE LEARNING ENGINEER · AI SPECIALIST

10 Kirkwood Drive, Lindley, Huddersfield, HD33WA, England, United Kingdom

☎ (+44) 07400-651284 | ✉ faisaljamil2010@hotmail.com | 🏠 faisaljamil2010.github.io/portfolio/ | 📷 faisaljamil2010 | 🌐 faisal-jamil-60762064/

“Be the change that you want to see in the world.”

## Summary

A versatile professional with extensive experience in software engineering, data analytics, and machine learning. Skilled in developing and optimizing scalable software solutions, building predictive models, and managing large datasets using big data technologies. Proficient in programming languages like Python, C++, and SQL, with hands-on expertise in deploying machine learning models and data-driven solutions for business intelligence. Passionate about leveraging technology to drive innovation and efficiency in diverse environments.

## Education

### Jeju National University (JNU)

PHD. IN ARTIFICIAL INTELLIGENCE

South Korea

Sep. 2018 - Aug. 2021

- Thesis Title: “Optimal Energy Trading Service and Resource Management based on SECaaS and AIoT in Smart Nanogrid”

### University of Engineering and Technology

M.S. IN COMPUTER SCIENCE

Pakistan

Sep. 2015 - Feb. 2018

- Thesis Title: “Adoptive Thermal Aware Routing Protocol for Wireless Body Area Network”

### Muhammad Ali Jinnah University(MAJU)

B.S. IN COMPUTER SCIENCE

Pakistan

Sep. 2010 - Aug. 2014

- Thesis Title: “Recommendation from Social Network For E-Learner”

## Honors & Awards

2018-2021 **Presidential Medal**, For academic research excellence from 2018-2021

Pakistan

Ongoing **Project Lead**, Developed Secure Threat Intelligence Sharing Platform funded by Innovation Funding Service (Project No: 10119325, £32,000)

United Kingdom

Ongoing **Project Lead**, AI-Enabled Secure Remote Monitoring of Elderly funded by ERCIM (Project No: 931103251, £60,000)

Norway

Ongoing **Global Talent Endorsement**, Endorsed by the Royal Society of Engineering UK

United Kingdom

Ongoing **World's Top 2% Scientist**, Listed by Stanford University(Rank No: 136,748 out of 1,000,000)

USA

Ongoing **Research Grant Award**, Secure Intelligent Energy Trading Model funded by Jeju National University (Project No: AD20186514, £5,000)

South Korea

2015-2018 **Government Scholarship**, Funded for Master Studies

Pakistan

Ongoing **Editor**, Blockchain MDPI

Switzerland

2018 **Platinum Cup**, Achieved on MVA, Hosted by Microsoft

Global

## Work Experience

### University of Huddersfield

Huddersfield, United Kingdom

RESEARCHER IN AI AND DATA ANALYTICS

Mar. 2023 - Present

- Led research grant proposals and mentored students on AI and machine learning, integrating advanced technologies like deep learning and NLP.
- Served as module leader for AI and Cybersecurity courses, providing hands-on experience and theoretical knowledge.
- Developed the Secure Threat Intelligence Sharing Platform (STISP) using Federated Learning and anomaly detection techniques.
- Implemented adversarial machine learning techniques to detect and mitigate malicious code in neural networks.
- Designed the IncepX-Ensemble Model for ethnicity recognition and face anonymization using deep learning models and YOLO variants.

### Norwegian University of Science and Technology

Norway

POST-DOCTORAL RESEARCH FELLOW

Jun. 2022 - May. 2023

- Developed AI-driven IoT solutions for smart city projects, including real-time data processing and predictive analytics.
- Led projects like gamified waste management using deep reinforcement learning and intelligent student evaluation systems using NLP.
- Integrated VR and AR for elderly care through a telepresence system and context-aware robots.

## Big Data Research Center

R&D ENGINEER

South Korea

Aug. 2018 - June-2022

- Designed ML models integrated with IoT and blockchain for data security and predictive analysis.
- Developed blockchain-based electronic medical records for healthcare data integrity and security.
- Enhanced indoor navigation accuracy using ML algorithms for mission-critical IoT systems.
- Implemented peer-to-peer energy trading mechanisms for smart grids using blockchain and ML.

## Capital University of Science and Technology

INSTRUCTOR ASP.NET (C)

Pakistan

Aug. 2015 - Aug. 2018

- Taught ASP.NET Core, MVC framework, and Entity Framework, providing practical experience with web API development.
- Guided students on full-stack application development and integration of ML techniques using cloud platforms.

## Microsoft

SOFTWARE DEVELOPER MICROSOFT (ASP.NET)

Pakistan

Aug. 2015 - Aug. 2018

- Developed web and mobile applications using ASP.NET, integrating ML algorithms for intelligent features.
- Engaged in cloud-based solution development with Microsoft Azure, ensuring secure and scalable deployment.

## Skills

PROGRAMMING LANGUAGES	Python, PHP, C/C++, C#, Java, Android
FRAMEWORKS	MVVM, MVC, CakePHP, Hadoop, Laravel, OpenCV, PowerBI
FRONT-END FRAMEWORKS	JQuery, CSS3, HTML5, Bootstrap, AngularJS
PERSISTANCE	MySQL, PostgreSQL, NoSQL (Mongo DB)
CI/CD TOOLS	GitHub Actions, GitLab , Azure DevOps, AWS CodePipeline
MLOPS	Azure Machine Learning (Azure ML)
SIMULATORS	Mininet, Omnet++, ONOS, EdgeX Foundary
OPERATING SYSTEMS	Ubuntu, Debian, Raspbian, Windows.
PROTOCOLS	IEEE 802.11, HTTP, CoAP, MQTT, LoRA, TCP/IP
TOOLS	MATLAB/Simulink, Sublime Text, Pycharm, Komodo Edit, Visual Studio
SOFTWARE DEVELOPMENT	Software Development Lifecycle (SDLC), Agile Methodology
Misc.	Wireshark, Packet Tracer, MS Office, Git, Subversion, AWS Webservices

## Leadership and Citizenship

2022	<b>Student Supervisor</b> , TEFT-Lab NTNU	Norway
Ongoing	<b>Module Leader</b> , Courses: AI, Cyber Security, and Distributed Ledger Technology	United Kingdom
Ongoing	<b>Supervision of Research Students</b> , Undergraduate and Postgraduate Programs	United Kingdom
2019-2021	<b>Korea-India Joint Research Funding</b> , Project: Secure Fitness Service based on IoT Blockchain Network	South Korea
2022-2023	<b>ERCIM Research Grant</b> , Digital Twins for Smart Healthcare Application	Norway
2024	<b>Innovation Funding Service Grant</b> , Project: Secure and Trusted Decentralized Platform for Threat Information Sharing	United Kingdom

## Projects

<b>Secure Threat Intelligence Sharing Platform (STISP)</b> UNIVERSITY OF HUDDERSFIELD (UoH) <ul style="list-style-type: none"> <li>Developed a secure platform integrating Federated Learning and anomaly detection for real-time cyber threat detection and mitigation.</li> <li>Enhanced collective threat defense through swarm intelligence and proactive machine learning algorithms.</li> <li>Skills: Federated Learning, Cybersecurity, Anomaly Detection, Python</li> </ul>	Huddersfield, United Kingdom Mar. 2023 - Present
<b>Detecting and Mitigating Malicious Code in Neural Networks</b> UNIVERSITY OF HUDDERSFIELD (UoH) <ul style="list-style-type: none"> <li>Applied adversarial training to detect and mitigate malicious code in neural networks, enhancing their robustness.</li> <li>Implemented robust optimization techniques for security in adversarial environments.</li> <li>Skills: Adversarial Machine Learning, TensorFlow, Keras, Cybersecurity</li> </ul>	Huddersfield, United Kingdom Mar. 2023 - Present
<b>Intelligent Ethnicity Recognition and Face Anonymization</b> UNIVERSITY OF HUDDERSFIELD (UoH) <ul style="list-style-type: none"> <li>Developed the IncepX-Ensemble Model for ethnicity recognition using models like VGG16, ResNet-50, and YOLO variants.</li> <li>Implemented privacy-preserving face anonymization using hybrid techniques such as blurring and masking.</li> <li>Skills: VGG16, ResNet-50, MobileNet, YOLO, Privacy-Preserving AI</li> </ul>	Huddersfield, United Kingdom Mar. 2023 - Present
<b>A Gamified Approach for Optimal Waste Management</b> NORWEGIAN UNIVERSITY OF SCIENCE AND TECHNOLOGY (NTNU) <ul style="list-style-type: none"> <li>Developed a waste management system using deep reinforcement learning and IoT-Blockchain technology for smart cities.</li> <li>Encouraged citizen participation through gamification, improving waste collection efficiency.</li> <li>Skills: Deep Reinforcement Learning, IoT, Blockchain, Python</li> </ul>	Norway Jun. 2022 - May. 2023
<b>Intelligent Open-Ended Question Evaluation</b> NORWEGIAN UNIVERSITY OF SCIENCE AND TECHNOLOGY (NTNU) <ul style="list-style-type: none"> <li>Built an AI model using NLP and optimization techniques to evaluate student exam answers with high accuracy.</li> <li>Used particle swarm optimization and gradient descent to fine-tune model parameters.</li> <li>Skills: Deep Neural Networks, NLP, Particle Swarm Optimization, Python</li> </ul>	Norway Jun. 2022 - May. 2023
<b>Telepresence System for Elderly Care</b> NORWEGIAN UNIVERSITY OF SCIENCE AND TECHNOLOGY (NTNU) <ul style="list-style-type: none"> <li>Developed a telepresence platform integrating 360-degree VR and context-aware robots for elderly assistance.</li> <li>Enhanced interaction through immersive VR experiences and AR-based robot navigation.</li> <li>Skills: Virtual Reality, Augmented Reality, Robotics, AI</li> </ul>	Norway Jun. 2022 - May. 2023
<b>Intelligent Electronics Medical Records Based on Blockchain</b> BIG DATA RESEARCH CENTER, ETRI <ul style="list-style-type: none"> <li>Implemented a blockchain-based system for securing electronic medical records with real-time anomaly detection.</li> <li>Utilized ML models (RNN, DNN) for predictive analytics in healthcare data.</li> <li>Skills: Blockchain, RNN, TensorFlow, Cryptography</li> </ul>	Jeju, South Korea Feb. 2019 - Aug. 2019
<b>Development of Inertial Navigation in Mission-Critical IoT Systems</b> BIG DATA RESEARCH CENTER, ETRI <ul style="list-style-type: none"> <li>Enhanced indoor navigation accuracy using ML algorithms and IMUs in mission-critical IoT systems.</li> <li>Implemented Kalman Filters and neural networks for precise indoor positioning.</li> <li>Skills: Sensor Fusion, Kalman Filters, Neural Networks, MATLAB</li> </ul>	Jeju, South Korea Mar. 2020 - Jul. 2020
<b>Academic Library Event Data Analysis and Prediction</b> BIG DATA CENTER, JEJU NATIONAL UNIVERSITY <ul style="list-style-type: none"> <li>Built predictive models using decision trees and gradient boosting for academic event analysis.</li> <li>Optimized resource allocation based on historical data and guided students in AI model development.</li> <li>Skills: Decision Trees, Gradient Boosting, Hadoop, Python</li> </ul>	Jeju, South Korea Mar. 2020 - Sep. 2020
<b>Development of Service Reference Model and Fitness Application Technology</b> BIG DATA RESEARCH CENTER, KETI <ul style="list-style-type: none"> <li>Developed a fitness application using IoT and ML models for personalized health tracking with blockchain security.</li> <li>Integrated deep learning and logistic regression for health recommendations.</li> <li>Skills: Deep Learning, Logistic Regression, Blockchain, IoT</li> </ul>	Jeju, South Korea Sep. 2020 - Jan. 2021
<b>Peer-to-Peer Energy Trading Mechanism for Smart Grids</b> BIG DATA RESEARCH CENTER, ETRI <ul style="list-style-type: none"> <li>Designed an energy trading platform using blockchain and ML algorithms for forecasting and optimization in smart grids.</li> <li>Implemented ARIMA and reinforcement learning models for accurate energy consumption prediction.</li> <li>Skills: Blockchain, Reinforcement Learning, ARIMA, Apache Spark</li> </ul>	Jeju, South Korea Sep. 2020 - Jan. 2021

## Publications

Research Contributions Overview

Global

PUBLICATION STATISTICS

As of 2023

- Total Number of Citations: 2,643
- H-Index: 23
- I-10 Index: 40
- Cumulative Impact Factor (as per JCR, 2023): 170
- Google Scholar Profile: [Google Scholar Link](#)

References

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Available upon request.