

# Spis treści

|    |              |
|----|--------------|
| 9  | Wstęp        |
| 11 | Wprowadzenie |

## Podstawowe pojęcia

|    |                                                                |
|----|----------------------------------------------------------------|
| 31 | AI Alignment                                                   |
| 32 | AI Chip                                                        |
| 33 | AI Ethics                                                      |
| 35 | AI Framework                                                   |
| 36 | AI Governance                                                  |
| 36 | AI Model                                                       |
| 37 | AI Platform                                                    |
| 39 | AI Regulation                                                  |
| 40 | AI Safety                                                      |
| 40 | Alexa                                                          |
| 42 | Anomaly Detection                                              |
| 43 | Area Under Curve - Receiver Operating Characteristic (AUC-ROC) |
| 44 | Artificial Intelligence (AI)                                   |
| 46 | Artificial Intelligence of Things (AIoT)                       |
| 47 | Attention Mechanism                                            |
| 48 | Augmented Reality (AR)                                         |
| 50 | Automated Machine Learning (AutoML)                            |
| 51 | Automation                                                     |
| 53 | Backpropagation                                                |
| 54 | Bayesian Network (BN )                                         |
| 56 | Bias                                                           |
| 56 | Bias in AI                                                     |
| 58 | Bidirectional Encoder Representations from Transformers (BERT) |
| 59 | Big Data                                                       |
| 60 | Chatbot                                                        |
| 62 | Classification                                                 |
| 63 | Cloud Computing                                                |
| 64 | Clustering                                                     |
| 66 | Cognitive Computing                                            |
| 67 | Computer Vision                                                |
| 68 | Confusion Matrix                                               |
| 70 | Convolutional Neural Network (CNN)                             |
| 71 | Cross-Validation                                               |
| 73 | Data Analytics                                                 |
| 74 | Data Mining                                                    |
| 75 | Decision Tree                                                  |
| 76 | Deep Learning                                                  |
| 77 | Deep Reinforcement Learning (DRL)                              |
| 79 | Descriptive Analytics                                          |
| 80 | Edge Computing                                                 |
| 82 | Evolutionary Algorithm (EA)                                    |
| 84 | Expert System                                                  |
| 85 | Explainable AI (XAI)                                           |
| 86 | F1 Score                                                       |
| 87 | Facial Recognition                                             |
| 88 | Feature Engineering                                            |
| 89 | Federated Learning (FL)                                        |

|     |                                          |
|-----|------------------------------------------|
| 89  | Uczenie federacyjne                      |
| 91  | Fuzzy Logic                              |
| 92  | Generative Adversarial Network (GAN)     |
| 93  | Generative Model                         |
| 95  | Generative Pre-trained Transformer (GPT) |
| 97  | Google Assistant                         |
| 98  | Gradient Boosting                        |
| 100 | Gradient Descent                         |
| 101 | Hyperparameter Tuning                    |
| 102 | Image Processing                         |
| 104 | Internet of Things (IoT)                 |
| 105 | Keras                                    |
| 107 | Knowledge Graph                          |
| 108 | Long Short-Term Memory (LSTM)            |
| 109 | Machine Learning (ML)                    |
| 111 | Mixed Reality (MR)                       |
| 112 | Natural Language Understanding (NLU)     |
| 114 | Natural Language Processing (NLP)        |
| 115 | Natural Language Understanding (NLU)     |
| 116 | Neural Networks                          |
| 117 | OpenAI                                   |
| 118 | Optical Character Recognition (OCR )     |
| 120 | Overfitting                              |
| 121 | Pattern Recognition                      |
| 122 | Personalization                          |
| 123 | Precision                                |
| 124 | Prescriptive Analytics                   |
| 126 | Predictive Model                         |
| 128 | Prescriptive Analytics                   |
| 130 | PyTorch                                  |
| 131 | Q-Learning                               |
| 132 | Quantum Computing                        |
| 134 | Random Forest                            |
| 135 | Recall                                   |
| 136 | Recommendation System                    |
| 137 | Recurrent Neural Network (RNN)           |
| 139 | Regression                               |
| 140 | Reinforcement Learning Agent             |
| 142 | Reinforcement Learning (RL)              |
| 143 | Robotics                                 |
| 144 | Sentiment Analysis                       |
| 146 | Siri                                     |
| 147 | Speech Recognition                       |
| 149 | Speech Synthesis                         |
| 150 | Supervised Learning                      |
| 152 | Swarm Intelligence                       |
| 153 | TensorFlow                               |
| 155 | Transfer Learning                        |
| 156 | Transformer Model                        |
| 158 | Transformers                             |
| 159 | Underfitting                             |
| 160 | Unsupervised Learning                    |
| 162 | Virtual Reality (VR)                     |
| 163 | Voice Assistant                          |

## Technologie

|     |                                                   |
|-----|---------------------------------------------------|
| 165 | AllenNLP                                          |
| 166 | AlphaGo                                           |
| 167 | AlphaZero                                         |
| 168 | Amazon SageMaker                                  |
| 170 | Apache Beam                                       |
| 171 | Apache Flink                                      |
| 172 | Apache Kafka                                      |
| 174 | Apache Spark                                      |
| 175 | Dialogflow                                        |
| 177 | Docker                                            |
| 178 | Elasticsearch                                     |
| 180 | FastAI                                            |
| 181 | Gensim                                            |
| 182 | Google Cloud AI                                   |
| 183 | Hadoop                                            |
| 185 | H2O.ai                                            |
| 186 | IBM Watson                                        |
| 187 | Hugging Face                                      |
| 188 | IBM DeepBlue                                      |
| 190 | Jupyter Notebook                                  |
| 191 | Kibana                                            |
| 193 | KNIME                                             |
| 194 | Kubeflow                                          |
| 195 | Kubernetes                                        |
| 196 | Language Understanding Intelligent Service (LUIS) |
| 198 | Machine Learning Agents (Unity ML-Agents)         |
| 200 | Matplotlib                                        |
| 201 | Microsoft Azure AI                                |
| 203 | MLflow                                            |
| 204 | Natural Language Toolkit (NLTK)                   |
| 205 | NumPy                                             |
| 206 | NVIDIA CUDA                                       |
| 207 | OpenAI Gym                                        |
| 208 | Open Neural Network Exchange (ONNX)               |
| 209 | Open Source Computer Vision Librar (OpenCV)       |
| 210 | Pandas                                            |
| 211 | Power BI                                          |
| 212 | RapidMiner                                        |
| 214 | Rasa                                              |
| 215 | Ray RLlib                                         |
| 216 | Scikit-learn                                      |
| 217 | Seaborn                                           |
| 218 | SpaCy                                             |
| 219 | Splunk                                            |
| 221 | Stanford CoreNLP (CoreNLP)                        |
| 222 | Tableau                                           |
| 223 | TensorBoard                                       |
| 225 | Weka                                              |
| 226 | Wit.ai                                            |
| 228 | You Only Look Once (YOLO )                        |

## Zastosowania

|     |                             |
|-----|-----------------------------|
| 230 | Ad Personalization          |
| 232 | Behavioral Analysis         |
| 234 | Biometrics                  |
| 236 | Climate Analysis            |
| 238 | Code Generation             |
| 240 | Competitive Analysis        |
| 242 | Content Generation          |
| 244 | Content Recommendation      |
| 246 | Credit Scoring              |
| 248 | Crop Monitoring             |
| 250 | Customer Support Chatbots   |
| 252 | Content Recommendation      |
| 254 | Cybersecurity               |
| 256 | E-commerce                  |
| 258 | Emotion Recognition         |
| 260 | Energy Consumption Analysis |
| 262 | Energy Management           |
| 264 | Environmental Monitoring    |
| 266 | FinTech                     |
| 268 | Fraud Detection             |
| 270 | Gesture Recognition         |
| 272 | Industry 4.0                |
| 274 | Inventory Management        |
| 276 | Logistics                   |
| 278 | Machine Translation         |
| 281 | Market Analysis             |
| 283 | Medical Diagnosis           |
| 285 | Medical Imaging             |
| 287 | Navigation                  |
| 289 | Precision Agriculture       |
| 291 | Precision Medicine          |
| 293 | Predictive Maintenance      |
| 295 | Risk Analysis               |
| 297 | Route Planning              |
| 299 | Satellite Data Analysis     |
| 301 | Security Analysis           |
| 303 | Self-driving cars           |
| 306 | Sentiment Analysis          |
| 308 | Smart Cities                |
| 310 | Smart Grid                  |
| 312 | Smart Home                  |
| 314 | Social Media Analysis       |
| 316 | Software Testing            |
| 318 | Soil Analysis               |
| 320 | Supply Chain Optimization   |
| 322 | Test Automation             |
| 324 | Threat Detection            |
| 325 | Trading Algorithms          |
| 327 | Traffic Analysis            |
| 329 | Voice Recognition           |
| 331 | Waste Management            |

## Bibliografia

|     |                                                                                      |
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| 332 | <a href="http://www.inforafinacja.pl/literatura">www.inforafinacja.pl/literatura</a> |
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