

Overview of Machine Learning Applications

LAB ACTIVITY 1

Submitted by:
Romero, Keayon Ivan V.
BSCS – 3B IS

Submitted to:
Mr. Mark Bernardino

Machine Learning in Communication

- **The problem being solved:**
 - Machine learning is used to enhance the power of virtual assistants like an AI chatbot to improve the response based on the input given.
- **The type of machine learning used:**
 - Most virtual assistants use supervised learning to monitor the data given to the bot and analyze its patterns.
- **The impact of the solution:**
 - Improvement of the response in case of customer services supported through AI chatbots that can be used 24/7.
 - AI can suggest solutions or information based on previous interactions with the user.

Machine Learning in Security

- **The problem being solved:**
 - Machine learning is used to improve cybersecurity and detect crimes like cyberattacks and enhance authentication process and identify threats with ease.
- **The type of machine learning used:**
 - Most cybersecurity devices use reinforcement learning because of its adaptability in case a user or a hacker attempts to temper with the device.
- **The impact of the solution:**
 - Reduced crime rate in the cybersecurity category.
 - Improvement of crime detection and strengthened authentication process like a facial or a fingerprint authentication.

Machine Learning in Education

- **The problem being solved:**
 - Machine learning is used to upgrade the way our education is used to the students. This focuses on using different learning styles based on the student's individual skills to improve educational learning.
- **The type of machine learning used:**
 - Most learning systems use supervised learning for adapting the system based on the performance of the students.
- **The impact of the solution:**
 - Improved learning efficiency in doing tasks and activities.
 - Enhanced student engagement and learning retention using some AI-powered educational tools.

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Thank you for listening!

BY: ROMERO, KEAYON IVAN V.