



Success with Artificial Intelligence in Casinos

*Finding Value in the Noise for Informed
Purchasing Decisions
and Practical Implementations*

Via Webinar

January 17-18, 2024

12 noon to 2 p.m. Eastern time each day

Presented by:

Dr. Jason Fiege, CEO, nQube Data Science Inc.

Dr. Anastasia Baran, COO, nQube Data Science Inc.

Delica Leboe-McGowan, Artisanal Computing Solutions Inc.

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This course is designed to cater to all levels of AI knowledge, whether you've never even given ChatGPT a shot or you're an experienced enthusiast wondering how it applies to the gaming industry.

This course offers an ideal platform for both technical and non-technical participants to enhance their understanding of AI and make informed decisions.

It will include these demonstrations of how AI can be used in gaming:

- Using a neural network to identify potential VIP players
- Generating marketing content using Large Language Models (LLMs) like ChatGPT
- Using an LLM to easily create programs to:
 - o forecast financial performance metrics for a casino
 - o optimize staffing
 - o segment casino customers for marketing campaigns.

Note re: the Practical Demos:

Participants are encouraged (but not required) to work concurrently, as all demo materials will be provided, including artificial data sets. Please see the note at the end of the agenda for the technical requirements for those who want to work concurrently with the trainers.

AGENDA

Day 1: Introduction to AI in the Gaming Industry

Introduction to the course

- Welcome and introductions
- Overview of the course structure

Types of AI in the gaming industry

- Machine learning
- Neural networks
- Tree-based algorithms as "rule discovery engines"
- Evolutionary algorithms
- Natural language processing

Applications of AI in different aspects of the gaming industry

- Marketing and customer segmentation
- Market demand and financial forecasting
- Predictive analytics for player behavior
- Slot floor analysis
- Fraud detection and prevention

Separating hype from reality

- Identifying genuine AI applications and understanding their value
- Understanding limitations and ethical considerations
- AI ethics and safety

Q & A

Practical Demo 1: Using a neural network, written in Excel, to identify potential VIP players.

- This demo brings practical AI to a commonly used tool like Excel
- The Excel neural network will be provided to class participants

Practical Demo 2: Preview of LLMs, generating marketing content using LLMs.

- An overview of the "do's and don'ts" of generating marketing content using LLMs like ChatGPT
- Designing effective prompts to develop marketing campaigns

Day 2: Language Models in the Gaming Industry

Introduction to Large Language Models (LLMs, e.g. ChatGPT)

- How LLMs work
- Why LLMs have gained popularity
- Training and running your own LLM onsite
- Overview of applications of LLMs in the gaming industry

Q & A

Day 2 Demos:

All demos will use Python code generated by ChatGPT and will not require previous coding experience.

All generated tools and data will be provided to the participants.

Demo 3: This demo will use an LLM to create a program to predict casino attendance to optimize staffing requirements.

Demo 4: This demo will use an LLM to create a program to segment casino customers for marketing campaigns, based on spend, gaming preferences, demographics, and zip code.

Demo 5: This demo will use an LLM to create a program to estimate the financial performance of a slot floor undergoing changes, based on the economic concept of diminishing marginal returns.

Discussion and Q & A

Note: AI is evolving rapidly. This outline may change to include new developments and technologies.

Optional Assignments

Additional optional exercises will be provided to participants. Participants will have the option of submitting them after the course for individualized feedback.

Technical Requirements

Participants who want to work concurrently with the trainers or do the optional assignment for personalized feedback will need:

- A ChatGPT account (<https://chat.openai.com/>) and access to it during the class.
- A Google account that can access Google Colab (<https://colab.research.google.com>) during the class.

Participants who just want to observe but not create the programs or do the optional assignment do not need the ChatGPT or Google Colab accounts.

Trainer Bios

Dr. Jason Fiege is CEO/Founder of nQube Data Science Inc. and Associate Professor of astrophysics at the University of Manitoba. He is a scientific computing, data modelling, and optimization expert with over 25 years' experience. He is the inventor of nQube's AI-guided evolutionary optimization and data modelling platform, and leads their research in slot floor optimization, AI-based player behavioral segmentation, optimization of slot segmentation, predictive AI systems for time series analysis, tree-based rule discovery engines, and optimization of trading strategies in financial markets.



Dr. Anastasia (Stasi) Baran is the Co-founder and COO of nQube Data Science. As part of a groundbreaking team that has been integrating AI into the gaming industry for several years, she has played a crucial role in developing AI-based slot floor optimization and player segmentation solutions. Driven by a desire to have fun at work, she pivoted from the academic world to the casino industry, where her innovative approach and extensive experience in implementing casino AI technologies have been essential to the success of nQube's AI-driven casino technology suite.



Delica Leboe-McGowan is an AI, cybersecurity, and software development consultant with expertise in computational astrophysics. She holds a B.Sc. (Hons.) and an M.Sc. and is currently pursuing a Ph.D. in computational astrophysics at the University of Manitoba. She specializes in developing innovative technologies to protect sensitive information, including biomedical data and financial records. In 2020, Delica received the Best Machine Learning Paper award at the IEMCON for her privacy-preserving neural networks for breast cancer detection from genomic data. As a consultant, Delica aims to bridge the gap between academia and industry, facilitating the adoption of new data privacy methods.



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Costs

Early Bird Registration Fee: \$295

Payment by December 15, 2023

Regular Registration Fee: \$395

Payment by January 14, 2024

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The cost includes a guidebook, slides, demo materials, Excel sheets, artificial casino data, and code used during the course. All generated tools and data will be provided to participants.

At the end of the class participants will be given additional optional exercises. Participants will have the option of submitting them after the course for individualized feedback.

Recordings of the webinar are not included in the price.

Refund policy: Cancellations made more than one week before the beginning of the class will receive a refund of the amount paid minus a \$50 processing fee. No refunds after that point. Substitutions may be made at any time. If you wish to reschedule your training, we will apply the full registration paid towards a future CDC Gaming Seminars class with no penalties or processing fees, assuming space is available in that seminar.

For additional information:

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