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Las Vegas, Nevada

Education

Novosibirsk State University
Applied Mathematics and Computer Science
"Modeling the active perception"
Master
Sep 2006 - June 2012

Publications

Vityaev, E.E., Neupokoev, N.V.: **Formal model of perception based on fix-point of anticipations**. In Approaches to mind modeling. pp. 155-172, Moscow, URSS Editorial (2014)

Vityaev, E.E., Neupokoev, N.V.: **Perception and pattern formal model as a fix-point of anticipations.** Vol 6, No 1, pp.28-41, Neuroinformatics (2012)

Pet Projects

Historic Unit Converter - a mobile app written in Kotlin. Published on Google Play Store

See You Later Alligator - a card game where you control evolution in a tamagotchi-shaped lab. Submitted for Go Godot Jam 3

N - a magazine, blog and knowledge base for embedded engineers, game developers and geeks. Built with Gatsby and React.

Nikolay Neupokoev

Mathematician Engineer

Profile

I'm a professional software developer with strong mathematics and programming background. With over a decade of experience, I have specialized in the gambling industry, encompassing game development, applied combinatorics, deployment of casino systems, and hardware integration.

Experience

April 2022 - present

Etho Gaming
Las Vegas, NV

golang python java

Mathematician Engineer

Developed an online server in Go to support real-time multiplayer functionality, optimizing performance and scalability. Used a WebAssembly-exported game engine, ensuring low-latency interactions with WebSocket communication, and providing frontend developers with a streamlined workflow for composing, previewing, and refining animations and shader effects.
Achieved a significant milestone by successfully guiding a Class II system through the certification process at BMM Testlabs, establishing a reputation for reliability and quality.
Redesigned the system's backend, introducing a modular architecture that seamlessly and transparently switches between Class II and Class III types of mathematical models.

Feb 2018 - Sep 2020

Slot Constructor
Las Vegas, NV

bash javascript docker jenkins

Director of Mathematical department

Designed mathematical models for Class III games which were certified in the test laboratory as GLI-11 compliant. Led development of server-based system with unique bingo rules imitating gameplay and frequencies of RNG casino games.
Introduced TDD practices by adding unit and integration tests for a legacy project, laying the foundation for future improvements| and refactoring. Adopted CI process from scratch, leveraging Jenkins, Docker, and PXE technologies to reduce the team's release preparation time significantly.

Oct 2015 - Feb 2018

c++ godot postgres lua

Lead Mathematician Engineer

Simplified development process by dividing monolithic games into separate backend and frontend components. Integrated gaming board GPIO, NVRAM, and various peripherals like bill acceptors, printers, and card readers, into a unified platform, ensuring clear separation from the game logic. The platform was supported by test scenarios and test cases.
Provided mentorship to junior team members, guiding them in game development and the maintenance of the backend system.

Oct 2012 - Oct 2015

Slot Constructor
Novosibirsk, Russia

c git linux

Mathematician/Engineer

Provided remote support for company's embedded system based on Linux.
Developed highly optimized simulation programs that calculate outcome of slot games.

About

My master's thesis project focused on modeling neuron behavior, reflecting my aspiration around the creation of artificial intelligence systems. In addition to this, my passions extend to robotics, DIY electronics, 3D modeling and printing, game development, cycling and board games.