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username hidden in a puzzle on this page

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 one controls 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.

The QR code above opens a list of pet projects on [linktr.ee/mikolasan](https://linktr.ee/mikolasan)

# 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



### Mathematician Engineer

April 2022 - present

Etho Gaming

Las Vegas, NV

Prepared for production an online game server in Go that was designed to be scalable and customizable without downtime for players.

Used previous experience with docker to scale the load on server components and to effortlessly install on different domains.

Based on a popular protocol for LED shows, I developed a system that can use robust tools for designing light shows, recording them over the network, and then reproducing sequences with nanosecond precision, because I use C++ again, enjoying new features from C++20 standard.

Deployed a Point-of-Sales system to several physical locations consisting of a Python server, PostgreSQL database, and user interface that is technically a web page but wrapped into an Electron application and complemented with Serial and USB peripherals.

### Director of Mathematical Department

Feb 2018 - Sep 2020

The Nodejs server has undergone a full rewrite with cleaner async functions, and a better ecosystem of libraries overall, but mainly because all game logic has changed.

Started using docker for deployment.

During COVID demonstrated a prototype of a contactless blackjack game for which I implemented real-time card recognition for the dealer's control panel.

### Lead Mathematician Engineer

Oct 2015 - Feb 2018

Slot Constructor

Las Vegas, NV

When our team switched the frontend engine to Godot, I was focused on building a customized Linux operating system, making the system installer, and creating a game server in Nodejs.

Had some time to create pull requests on GitHub for Godot and Logagent. They were accepted by the open-source community.

Started supervising some team members. Learned how not to go into detailed micromanagement.

Also trained a team of developers and interns on frontend development, and improved the backend API.

Prepared reports programmatically with a Python library, but this time, exporting results into Excel.

### Mathematician/ Engineer

Oct 2012 - Oct 2015

Slot Constructor

Novosibirsk, Russia

Continued extending my proficiency with C++ and object-oriented paradigm after 3 years of writing a program for my thesis, now working on a game engine based on SDL and Lua as scripting language.

Applied combinatorics into many different types of casino games such as video poker, keno and slot machines. Prepared reports for my calculations in a programmatic way with Lua scripts and LaTeX.

Spent a lot of time with Lua, releasing 15 game titles, and started working on a uniform backend, keeping Lua language, although I will regret that I haven't argued enough about this decision.

## 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 3D printing, game development, cycling and board games.



*M. Neupokoev*

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