

# Ivan Khurudzhi

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## Education

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- B.S., University of Wisconsin-Madison, 2019-2022.
- Computer Science and Mathematics

## Skills

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- Proficient in *Java*, *Python*, *C#*
- Familiar with *JavaScript*, *HTML*, *CSS*
- Experience with *JUnit*, *JavaFX*, *NumPy*, *Keras*, *PyTorch*, *scikit-learn*, *Matplotlib*, *SciPy*, *OpenGL*, *Spotipy*

## Projects

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- *Spotify Classifier* (January 2021)
  - Python, Atom
  - Writing a Python script that fetches a Spotify user's playlist and adds new playlists to the user's library each containing songs from the original playlist classified by genre
  - Using Spotify API and Spotipy library to communicate with the user's Spotify library
  - Using [last.fm](https://last.fm) API to request the information about the songs' genres
- *N-Queens Problem* (Fall 2020)
  - Python, Atom
  - Finding an optimal solution to placing  $n$  queens on an  $n \times n$  chessboard
  - Implementing the Hill-Climbing algorithm with random restarts
- *Analysis of Farm Production of Milk* (Summer 2020)
  - Java, Eclipse
  - Designed a multi-class GUI program adhering to OOP principles
  - Implementing the program using *JavaFX*
  - Implementing a testing class with *JUnit*
- *Visualization of a Gravitational Field in Einstein's Gravitational Theory* (Summer 2019)
  - C#, Visual Studio
  - Mentor - Vladimir Stokov, researcher at Moscow Institute of Physics and Technology
  - Working with multidimensional arrays and complex physical and geometrical values
  - Visualization with *OpenGL*

## Research

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*Team:* Information Skunkworks at the University of Wisconsin-Madison

*Project:* Defect Detection Using Models with Synthetic Images

*Description:* Using deep learning-based object detection models to characterize and quantify defects in electron microscopy images (01/2021 - present).

## Work Experience

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• *Concert Director* (August 2018 - June 2019)

- Company: *Veshalka Market*
- Location: *Moscow, Russia*
- Job included: *Booking artists for music performances, controlling the sound equipment and the soundboard.*