

Ariela Litvin

+1 (347) 918 - 6554 | arielalitvin3@gmail.com | github.com/Grumpy-Kat

Experience

Research Assistant at Stevens Institute of Technology | June 2022 – September 2023

- Researched the design of interactive dashboards for artillery systems, including adding numerous new features and a new tab that allowed users to trace the factors that influence the capabilities of systems.
- Worked to make various features easy for users to comprehend, including Monte Carlo simulations and a 5-dimensional graph with uncertainty metrics.
- Published and presented a paper in the CSER 2023 conference.
- Involved in the creation of a dashboard that provided a framework and integrated other dashboards in the research department.

Teacher at StemKids NYC Non-Profit | June 2018 – August 2018

- Taught children from ages 4-14 to code and established computer science fundamentals.
- Used a variety of activities to show concepts, including networking, 3D modelling, and programming.

Volunteer Teacher at JASA Senior Center | January 2017 – December 2019

- Taught with a variety of phones and computer operating systems in one class.
- Created biweekly lesson plans to demonstrate practical uses for technology.

Education

Bachelor of Science in Computer Science

Stevens Institute of Technology | August 2021 – Present

Skills & Languages

- Python, including Dash, Flask, Django, Pandas, TensorFlow, Keras, and Scikit-Learn, etc.
- Dart with Flutter
- HTML, CSS, and JavaScript, including React
- Unity and Unreal Game Engine
- English
- Java
- C#
- C and C++
- PHP
- MySQL, NoSQL, and Firebase Firestore
- Russian

Projects

GlamKit

Created makeup inventory app made with Dart, Flutter, and Firebase Firestore, released for Android and iOS. Detects the color and finish of eyeshadow with a classification neural network. Implemented various color math formulas for finding similar colors, generating randomized looks, etc.

Fantasy Map Generator

Made in Unity and C#. Procedurally generates pixel art terrain using layered Perlin noise. Creates resources using Perlin noise. Generates kingdoms with cellular automata. Uses custom Unity editor tools.

Survival Battle Royale

Made in Unity and C#. Multiplayer system uses Photon networking. Procedurally generated maps using Voronoi diagrams and Poisson disk sampling. XML-based systems for data. Component-based architecture. Animal AI uses a state machine based on their components and player behavior.

Possession Game

2D stealth game made in Unity and C#. Procedural city generation using Perlin noise. Procedurally generated interior layouts using binary space partitioning. Implemented AI through state machine with an internal messaging system and pathfinding through A*. Implemented dialogue system using simple custom scripting.

Flappy Bird Neural Network

Implemented genetic algorithm with a neural network in Java, to train it to fly for the longest period of time.