

Michael Ramoutar

(718) 593-1633

miker704@gmail.com

[PORTFOLIO](#)

[GITHUB](#)

[LINKEDIN](#)

[ANGEL](#)

SKILLS React, Redux, Ruby, Rails, C++, JavaScript, Java, SQL, C, C#, Python, Rust, PostgreSQL, SQLite3, jQuery, Assembly x86, Mongoose, MongoDB, Node.js, Express.js, Sequelize.js, HTML5, CSS3, Bootstrap 5, Canvas, Git, Heroku, AWS, Webpack

PROJECTS

Paint by Numbers (Mongoose, MongoDB, Express, React, Redux, Node.js)

[live](#) | [github](#)

An application built using the MERN stack for creating, playing, and sharing Nonogram puzzles using drawn or uploaded images.

- Working as a team of 3 engineers, serving as the lead backend engineer, handling overall project structure, MongoDB management, user authentication, models, schema, validations, Axios requests, Redux Store, actions and reducers.
- Designed a complex framework of React components to compose the puzzle Board interface, which facilitates a myriad of stylish and responsive functionalities such as multi-select.
- Scripted robust functions for importing and converting images into pixilated Tile maps, whose RGB values were analyzed to produce playable, sharable puzzles and be parsed to a string to be saved to the database.

Centipede.js (JavaScript, DOM, HTML, CSS, Canvas)

[live](#) | [github](#)

A recreation of the classic Atari 1981 game Centipede with a modern twist including more enemies, power ups and game mechanics.

- Utilized canvas to draw and render custom made assets to the screen infinitely till the player loses all lives.
- Used advanced mathematics to create unique AI algorithms for player tracking and movement for the Centipede and other entities in the game. Other algorithms include physics and collision detection, gravity, for certain objects in the game.
- Added a wide array of features not present in the original game include new enemies, power ups, and game mechanics.

\$TR!F3 (Ruby on Rails, React, Redux, PostgreSQL, ActionCable, WebRTC, C++, AWS)

[live](#) | [github](#)

A comprehensive full-stack clone of the popular communication app Discord and its functionalities including text, video & voice chat

- Utilized both React and Rails to produce a dynamic, responsive single-page application connected to PostgreSQL database.
- Integrated hundreds of modular React Components to compose the webpage into a seamless, responsive UI experience.
- Employed Web sockets using Action Cable and WebRTC allows users to live-chat including video & voice calls, create servers, and message each other all in live time.
- Created an API called CORE which uses Action cable and Redux to achieve full asynchronous functionality everywhere in app, any Redux action dispatched that involves multiple users, or visual changes will be transmitted live to each user.

EXPERIENCE

Associate Software Developer

Infosys, New York, NY

July 2020 - March 2021

- Associate Software Developer Trainee, trained in both front/back end development in Java, JavaScript, Angular.js, Node.js, HTML, CSS, SQL, and Spring Framework, to develop, test, and maintain systems and applications of company clients.

Computer Science Teacher & Tutor

RFCUNY- York College, New York, NY

Spring 2018 – Summer 2019

- Teach High school Students the basics of C++ and Python in an after school program designed to introduce the field of computer science to a younger audience
- Tutored college students ~15-30/week in Math, programming, data structures & algorithms, and computer science theory.

Software Engineer Intern, Autonomous Drones & A.I.

United States Department of Defense - Army Research Labs, Baltimore, MD

Summer 2018

- Designed, implemented, and tested navigation stack & object/detection algorithms on a UGV, which used CNN neural networks to detect objects/people in an area to tactically aid soldiers – (MATLAB, C++, Python, ROS)

EDUCATION

Software Development - App Academy | Spring 2022

Software Development – CUNY Tech Prep | 2018 - 2019

Computer Science BS – The City University of New York -York College | 2014 - 2019