

Ryan Yan

EDUCATION

Recurse Center Programming Retreat, Recurse Center

Nov 2016 – Feb 2017

Participant

- Studied, pair-programmed, built, and taught a multitude of technical matter such as how to deploy your first Python app, fundamentals of web development, and algorithmic problem solving

College of William and Mary, Bachelor of Science, GPA 3.78 / 4.00

May 2016

- Graduated with departmental honors in Mathematical Biology, minor in Computer Science
- Relevant Courses: Data Structures, Algorithms, Discrete Structures in CS, Principles of Programming Languages, Computer Organization, Applied Statistics, Linear Algebra, Ordinary Differential Equations

Honors Thesis Computational and Applied Math, College of William and Mary

Aug 2015 – May 2016

Interdisciplinary Honors Student

- Computation of discrete and continuous time stochastic and deterministic simulations in R
- Investigation into effects of network geometries and stochasticity on rapid spread of invasive populations

EXPERIENCE

Silver Knights Enrichment, Fairfax, VA

Aug 2017 – Present

Coding Instructor

- Teaching students fundamentals of programming using the visual programming language Scratch

National Institute for Mathematical and Biological Synthesis, Knoxville, TN

Jun 2015 – Aug 2015

Professional Intern

- Formulating and implementing Markov chain models to generate projections of invasive species spread
- Summary and analysis of multimillion row high dimensional US DOT datasets in R
- Collaborated in development of online data visualization tool for said models and datasets

PROJECTS

- **8-bitifier**. Image processing algorithm in Python to 8-bitify images, served with Flask backend
- **Chat App**. Simple web chat app using Node and Socket on the backend
- **Spotify Shuffler**. Spotify playlist shuffling web application using Spotify's web API and Node backend to fix Spotify's pseudo-random shuffling
- **Colorburst**. Chrome new tab extension using p5.js and Unsplash API to slowly color in a beautiful photo in your new tab
- **Expensify App**. Expense tracking web application with React / Redux frontend
- **Octosoccer**. Online multiplayer-capable soccer game in Lua using LÖVE game engine and sock.lua backend

SKILLS

- Languages: Javascript (ES6), HTML, CSS, Python, R, Processing (p5.js), Lua
- Skills: Full-stack Web Development (React + Redux, NodeJS + Express, MongoDB, Firebase), Testing (Mocha, Jest, Enzyme), Data Analysis and Statistics, Mathematical Modeling, Writing, Research
- Github profile: <https://github.com/apsicle>, Portfolio: <https://apsicle.github.io/portfolio/>
- Misc: Taught myself to play the piano because I loved the theme to FFVIII