

# NICOLAS S. MONTANARO

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Seeking a challenging full-time position where I can apply my technical ability to create tools & toys that make people smile.

## experience

**Recurse Center, Participant**  
New York City, NY

**February 2018 - May 2018**  
Full-time

- The Recurse Center runs free, self-directed, project based programming retreats for anyone who wants to get dramatically better at programming.
- Focusing on programming a Gameboy emulator, toolchain, and homebrew in C, Go, and Z80 assembly.

**HomeReport, Full Stack Developer**  
Wilton, CT

**May 2017 - present**  
Full-time

- Developed two hybrid mobile applications, one for buying homes and the other for selling, using TypeScript and the Ionic framework.
- Created datasource agnostic backend APIs using Node which allowed for a single point of ingestion for nationwide home information. This makes it simple for any maintainer with knowledge of JavaScript to seamlessly add new data to the existing pipeline.
- Researched, implemented and maintained a collaborative filtering recommender system with Hadoop and Spark. Aggregate information about user preferences is used to provide suggestions for homes with qualities a user is likely to be interested in.

**mySpiderWeb, Full Stack Developer**  
Rochester, NY (remote)

**May 2016 - September 2016**  
Part-time, summer

- mySpiderweb is a social media publishing tool that streamlines a multi-network presence for small businesses.
- Was a member of a small team developing the application for use with Facebook, LinkedIn, and Twitter integration. The stack included Meteor, HTML, CSS, JavaScript and MongoDB.

**Intel, Software Application Engineer**  
Santa Clara, CA

**January 2015 - December 2015**  
Co-op, degree requirement

- Analyzed the performance of 3D camera hardware & software on Intel architecture prior to release.
- Developed and tested mobile performance analysis tools for Android, iOS, and Windows-based tablets for Intel lab personnel.
- Identified and resolved proprietary software issues which resulted in the on-time delivery of a performance monitoring tool to Intel labs.

## projects

**Halken** → source: [bit.ly/hlk-nsm](https://bit.ly/hlk-nsm)  
Go

- Halken is a work-in-progress Game Boy emulator written in Go.
- Created as an exercise in low-level programming and to gain a better understanding of computer architecture.

**Independent study in code clone detection techniques** → white paper: [bit.ly/ind-nsm](https://bit.ly/ind-nsm)  
Java

- Implemented & compared GPLAG algorithm against widely-used tools for plagiarism detection in student code submissions.
- Benchmarked and analyzed tokenization vs. subgraph isomorphism detection techniques for code clone detection.

**Recipe Book** → source + live link: [bit.ly/rb-nsm](https://bit.ly/rb-nsm)

Ruby, Rails, Bootstrap, HTML5, CSS3, Sass, Angular

- Web application that allows users to scrape recipes from popular recipe websites, comment on them, edit them, and share them.

**Alice & August: A Love Story** → project page: [bit.ly/aals-nsm](https://bit.ly/aals-nsm)  
LÖVE framework, Lua, Photoshop

- Game created entirely from scratch in under 48 hours for the Ludum Dare 33 game jam.
- Made with no prior knowledge of Lua or the LÖVE framework.

## education

**Rochester Institute of Technology**  
B.S. Computer Science  
May 2017

- **Computer Science Student Lab Instructor**
  - Assisted faculty in the delivery and grading of weekly Python programming projects for an introductory Computer Science course.
  - Tutored individual students in introductory Computer Science courses on a biweekly basis.
- **Computer Science Ambassador**
  - Served as a representative of the computer science program to potential new students by running informational seminars and tours.
  - Interviewed potential professors with RIT faculty when potential professors sought employment.

**Viking Code School**  
Boot camp

February 2015 - August 2015

- Completed an intensive 16 week full-stack development boot camp.
- Focused on Ruby + Rails, includes JS, Angular, Sinatra, HTML5/CSS3, Sass, and numerous other DSLs, frameworks, and tools.