

# Narun Raman

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## Education

### University of British Columbia

MASTER OF SCIENCE IN COMPUTER SCIENCE

- **Research Assistant** advised by Margo Seltzer (Systopia)

Vancouver, BC

September 2021 – June 2023

### Carleton College

BACHELOR OF ARTS IN COMPUTER SCIENCE, MATHEMATICS, AND PUBLIC POLICY

- **University of British Columbia**, Vancouver, Canada — *Research in an External University Fall 2019*
- **Semester Abroad in Cambridge**, Cambridge, England — *Summer 2019*

Northfield, MN

September 2016 – June 2020

## Skills

<b>Languages</b>	Python, Java, JavaScript, C, R, Scheme, SQLite, Postgres
<b>Frameworks</b>	Django, React, Flask, REST
<b>Operating Systems</b>	Windows, macOS, Linux (Debian/Ubuntu, Fedora)

## Experience

### Wells Fargo

PROGRAM ASSOCIATE

- Worked in a variety of capacities in both SCRUM and Waterfall teams to develop front to back end technologies.
- Migrated the Loan Forgiveness Tool onto a newly built Java DB, leveraging REST and JavaDB.
- Fully built out QA for two microservices.

Minneapolis, MN

August 2020 – May 2021

### Overlay Inc.

SOFTWARE ENGINEER INTERN

- Developed and implemented an edge detection algorithm in an existing iOS AR platform.
- Application is for surveyors building topographical maps via iPhone AR camera.
- Algorithm built to detect and distinguish between the top of a telephone pole and surroundings to enable ease of use for surveyors.

Menlo Park, CA

June 2018 – Sept. 2018

### View Inc.

PILOT R&D INTERN

- Devised and automated the failure analysis of electrochromic glass.
- Worked with failure experts to develop a streamlined workflow from field analysis to cleaned data and corresponded with factory in Missouri to understand critical failures.
- Presented the work to the FA group and pointed to key places for improvements and showcased a basic computer vision model for automation.

Milpitas, CA

June 2017 – Sept. 2017

## Leadership Experience

### Tenure-Track Hiring Committee

MATHEMATICS STUDENT

- Was the first point of undergraduate student contact for tenure-track Math professorial candidates.
- Part of discussions with the Math department on which candidates fit Carleton's culture and standard to be hired.

Carleton College

January 2020 – March 2020

## Projects and Research

### End to End Provenance tool

VISITING INTERNATIONAL RESEARCH STUDENT

- A multi-language tool for displaying and connecting data provenance from the application level through to the system level.
- Visualized through the same model written in Python and R, was able to, for the first time, fully implement end to end provenance collection.
- Motivation was to enable scientists to reproduce and peer-review work in a systematic manner.

University of British Columbia

October 2019 – December 2019

### ALCH: An Imperative Language for the CRN-TAM

UNDERGRADUATE RESEARCHER

- Built a high-level language in C to simulate the Chemical Reaction Network-Controlled Tile Assembly Model.
- Working off of Erik Winfree and Nicholas Schiefer's CRN-TAM construction, developed a model to simulate the mechanics of the system.
- Using the language, we were able to show certain properties unique to the CRN-TAM, and give a schema for a well-known problem: strict construction of the Sierpinski Triangle.
- Motivation was to enable practitioners a way to visualize and experiment with a complicated biological computational model.

Carleton College

April 2019 – June 2019