

Narun Raman

 LinkedIn |  GitHub |  Website

EDUCATION

University of British Columbia

Ph.D. in Computer Science

Vancouver, BC

Sep 2024 – Current

University of British Columbia

Thesis-based M.Sc. in Computer Science

Vancouver, BC

Sep 2021 – Dec 2023

Carleton College

B.A. in Computer Science and B.A. in Mathematics

Northfield, Minnesota

Sep 2016 – Jun 2020

WORK EXPERIENCE

Wells Fargo

Software Engineering Intern

Minneapolis, MN

Aug 2020 – Aug 2021

- Built and maintained the set of small, independent services that power Wells Fargo's PPP Loan Forgiveness portal, handling thousands of applications every day with high reliability.
- Wrote a rules service that applies SBA forgiveness criteria automatically, cutting most manual reviews and shortening decision time from two days to half a day.
- Put simple test-and-deploy checks in place so updates ship safely within a day, even during peak traffic.

Overlay Inc.

Software Engineering Intern

Menlo Park, CA

Jun 2018 – Sep 2018

- Integrated a domain-adapted Canny edge-detection module into an iOS AR surveying app, enabling users to generate topographical maps with nothing more than an iPhone camera.
- Optimized the algorithm to reliably differentiate the tops of telephone poles from surrounding features, streamlining field data collection for surveyors.

View Inc.

Pilot R&D Intern

Milpitas, CA

Jun 2017 – Sep 2017

- Automated the failure-analysis pipeline for electrochromic glass by creating a computer-vision workflow that converts raw field imagery into parseable data.
- Collaborated with failure-analysis experts and the Missouri manufacturing line to pinpoint root-cause defects, presented findings to the FA group, and highlighted high-impact process improvements.

AWARDS & ACHIEVEMENTS

Distinction in Computer Science (2020): Awarded to highly ranked Carleton College students whose thesis in Computer Science earned a distinction.

Nominated for membership in Sigma Xi (2020): Invite only, requires nomination by two Sigma Xi members.

PROJECTS

End-to-End Provenance

- A 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.
- Development in user and kernel space, in order to make a multi-language tool working on any platform.

ALCH: An Imperative Language for the CRN-TAM

- A high-level language in C to simulate the Chemical Reaction Network-Controlled Tile Assembly Model.
- Working off of the 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.