

Aishwarya Ramanathan

Masters Student in Computer Science at the University of Waterloo

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 [aishr.github.io](https://github.com/aishr)

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– Education –

- 2019– Masters Student, MMath
Department of Computer Science, University of Waterloo, Ontario, Canada
Supervisors: Richard Trefler & Arie Gurfinkel
- 2014–2019 Undergraduate Student, HBSc.
Mathematics, Computer Science & Statistics Department, University of Toronto, Ontario, Canada
Specialist in Computer Science & Minor in Mathematics

– Experience –

- Sep 2016– Computer Science & Mathematics Teaching Assistant
University of Toronto & University Of Waterloo
- May 2017–Aug 2018 Full Stack Developer Intern
Indigo Books & Music
Projects include Competitive Pricing, Catalog Cloud Migration (CCM) & Cloud Pricing Dashboard (CPD)
- CCM: Developed an internal system to programatically populate cloud based catalog with on premise catalog entries
CPD: Summarized Azure Cloud Pricing into an internal dashboard for easy cost viewing and analysis

– Publications –

- ▷ Zehra, S., Ramanathan, A., Zhang, L. Y., and Zingaro, D. Student Misconceptions of Dynamic Programming. In Proceedings of the 49th ACM Technical Symposium on Computer Science Education (SIGCSE '18). [Link](#)
 - ▷ Identifies and analyzes why students have trouble learning the dynamic programming algorithm
 - ▷ Research process included interviewing multiple students while recording their responses for analysis

– Masters Research Projects –

Spacer Visualizer + Prose Backend (C#, Python, ReactJS) [\[FE Source\]](#) [\[BE Source\]](#) [\[Prose Source\]](#)

- ▷ Allows a user to view SPACER's exploration tree of potentials proofs and counterexamples
- ▷ Smart editing using **Microsoft Prose' Program Synthesis Framework**
- ▷ Developed a custom domain specific language for Prose to synthesize programs with

Spacer Dashboard (ReactJS, d3) [\[Source\]](#)

- ▷ Developed a visualization system for a variety of benchmarks for the model checking program, Spacer
- ▷ Includes different views for select metrics (ex. time, memory, num of lemmas, etc.)

– Personal Projects –

Website [\[Source\]](#) [\[Site\]](#)

- ▷ Experimentation project to learn React JS
- ▷ Includes single page app routing for github pages compatibility
- ▷ GIFs included to showcase personal projects

Browser Landing Page/Startpage [\[Source\]](#) [\[Site\]](#)

- ▷ Written in HTML/CSS/JS
- ▷ OSX styled shortcut dock with keyboard shortcuts for quickly accessing frequently used websites
- ▷ Search bar that handles keyboard shortcuts as well as general search terms