

# Scott R. Mathews

## Software Engineer

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### Education

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Indiana University – Bloomington

August 2014 – May 2018

*Master of Science in Computer Science (2018), Bachelor of Science in Computer Science (2014 - 2017)*

**Relevant Coursework:** Advanced Functional Programming, Algorithm Design & Analysis, Artificial Intelligence, Compilers, Computer Vision, Computing Theory, Data Mining & Analysis, Data Structures & Algorithms, Machine Learning, Programming Languages, Software Engineering, Statistics

### Relevant Experience

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Microsoft, Seattle (Bellevue), WA

May 2017 – **Current**

*Software Engineer II, Search & Assistant*

- Overhauled search page in Outlook Mobile for Android, replacing frontend architecture with a more modern MVVM stack
- Led Android client implementation of an end-to-end instrumentation contract, to support modern AB testing in search

*Software Engineer, Cortana Experiences*

- Used Bing's frontend monolith to ship web-based settings pages for Cortana experiences
- Added news podcasting feature to *My Updates* first-party skill for Cortana, and maintained the microservice

*Software Engineer Intern, Enterprise Cortana*

- Developed Cortana skill for assisting in coordinating meetings within Microsoft through Outlook calendar
- Contributed to development of new Enterprise AI platform on Cortana team

Indiana University, Bloomington, IN

August 2015 – May 2018

*Assistant Instructor, Introduction to Artificial Intelligence, Games & Puzzles, Mathematical Foundations of Informatics*

- Designed, built, administered, and graded homework assignments for Introduction to Artificial Intelligence
- Built a system for machine-reading names and grades on physical papers using computer vision to aid in grading duties

TCS, Cincinnati, OH

June 2016 – August 2016

*Software Engineer Intern*

- Developed concierge web application for the Tata Global Delivery Center front desk
- Employed a stack of React, Redux, MongoDB, and Express

### Projects

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*Research Assistant, Bioinformatics*

- Applied newly developed metrics to various datasets to provide performance data for paper, published at <https://doi.org/10.1007/s10618-019-00622-6>
- Gathered impact data for bioinformatics journals, published at <https://doi.org/10.1093/bioinformatics/btaa071>
- Built system to generate insights in large text datasets by calculating correlation between sets of terms

*Compiler, Racket*

- Built a multi-pass compiler for a subset of the Racket language for graduate compiler course
- Source code available upon request (private to avoid plagiarism)

*Eagle Scout Project, Campsite*

- Led recreation improvement project in my hometown from design through approval in local council, to execution as the head of 40 volunteers

### Miscellaneous

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**Familiar Languages:** Kotlin, Java, C#, Python, JavaScript, Racket

**Frameworks:** Android, ASP.NET, React

**Architectural Experience:** MVVM, MVC, Microservices, Monoliths, Spaghetti

**Other:** Figma, Agile, Scrum, Test Driven Development, Version Control (Git)

**Activities & Interests:** Sailing, Hiking & Backpacking, Fitness, Skiing, Shooting, Travel, Writing (genre fiction), Reading, AI Progress