

William Goodall

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Education

- 2019-2023 **Georgia Institute of Technology**, College of Computing Atlanta, GA
(est.) *Major in Computer Science, 1st-year, Honors Program LLC.*
Relevant coursework: CS 1332 (Data Structures and Algorithms) and MATH 1554 (Linear Algebra).
- 2015-2019 **Montclair Kimberley Academy** High School Montclair, NJ
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Skills and Projects

Languages JavaScript, Go, Rust, Java, Wolfram Language, Python, C++
Frameworks/Tools Git, CI/CD, Docker, GraphQL, React (web and native), Next.js, Express
Platforms Google Cloud, Firebase, Kubernetes, Heroku, Wolfram Cloud

Cookie (2019) Dynamic cookbook. Based on the user's cooking preferences, construct a set of recipes as dependency graphs, simplify them by merging similar steps, and sequence them in parallel as the user cooks the meal. *Android/iOS app implemented with React-Native and TypeScript. Released to Google Play: bit.ly/2muVZiY*

Shikaku-solver (2018) Very efficient heuristic and recursive-backtracking solver for Shikaku puzzles (proven NP-complete by Takenaga). *Web app implemented in Go, Deployed to Heroku at: shikaku-solver.herokuapp.com*

Emblem (2017) Proof-of-concept for a cryptographically-secured Twitter clone. Each user has their own keypair, which must sign every action they take on the platform. *Web app implemented in React/Node.js, deployed to Google Cloud, running on top of Cloud Datastore. Accessible at: emblem.tk*

History

- 2019— **Wolfram Research**
(ongoing) *Assistant Program Coordinator, Emerging Leaders Program*
Manage and coordinate 5 project-oriented teams working on CS research, guiding them through the development process, and resolving technical or interpersonal issues.
- 2017-2018 **Transparenssee Systems** New York, NY
Summer Intern, Developer
Created a client-facing customization tool for web widgets. This project was deployed to more than 60 local newspapers across the US, integrating with real estate platform enclosure.io and agricultural classifieds site agrisearch.com
Responsibilities included:
- Designing and building full-stack web applications (React/Redux frontend, Express.js backend)
- Creating an automated CI/CD pipeline to build, test and deploy the application to Kubernetes.
Business Impact:
- Allow non-technical users to easily integrate their Enclosure/Agrisearch listings with their own web properties.
- 2015-2019 **MKA STEM Team**
President (2017-19), Vice President (2016-17), Member (2015-16)
Teach and promote STEM skills and literacy, direct complicated, collaborative technical work during regional hackathons and coding competitions. Made key application architecture decisions, selected tools the entire team could rapidly become productive with. Won: (2x) 1st place Advanced, Lockheed Martin CodeQuest, 2017 and 2018; (2x) Grand Prize Advanced, Agile Youth Challenge NYC, 2017 and 2018; Best Code, Agile Youth Challenge Riverdale, Fall 2017; Best Web App, Local Hack Day Rutgers University, Fall 2018.
- 2016-2019 **Lifelong Montclair**
Tech Volunteer
Create a volunteer program with Montclair, New Jersey's municipal senior services organization, Lifelong Montclair, to teach tech literacy skills and troubleshooting to older people. Ran drop-in sessions every week to educate and resolve common problems.