# Gavin A. Rolls

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## Education

**Georgia Institute of Technology –** Atlanta, Georgia                       August 2019 - May 2023
- Bachelor of Science in Computer Science – Concentrations in People and Information Internetworks
- Stamps President's Scholar – Georgia Tech's premier full-ride merit scholarship. 40 selected from 20,000 applicants. Selected based on the pillars of scholarship, leadership, progress, and service.
- Cumulative GPA: 3.90, Major GPA: 4.00

**University College London –** London, England                       September 2023 – May 2024
- [Incoming] Master of Science in Urban Spatial Science at The Bartlett Faculty of the Built Environment

## Work Experience

**Sustainable Megaregions Research Project –** Atlanta, Georgia                       February 2021 - May 2023
*Undergraduate Research Assistant*
- Delineated boundaries of established and emerging megaregions using NASA VIIRS and DMSP datasets in Google Earth Engine
- Designed and coded a data-first megaregions delineation tool with Earth Engine. Used the approach to perform a global search
- Analysed and aggregated 400+ papers as part of a comprehensive literature review of megaregion literature

**MessageGears –** Atlanta, Georgia                       May 2022 – August 2022
*Software Engineering Intern*
- Worked as a full stack developer on MessageGears' email marketing web app
- Created and implemented novel user interface elements using TypeScript and Angular
- Improved application interface with SQL backend using REST API calls
- Wrote unit tests, view tests, and Cypress tests to improve testing coverage across the testing stack

**Liberty Global –** Amsterdam, Noord-Holland                       June 2017 – July 2017
*Test Automation Engineering Intern*
- Tested UI functionality for the Liberty Global EOS set top box by developing an automated test repository
- Used Robot Framework and Behaviour-Driven Development to automate the testing of 10,000+ scenarios daily

## Projects

**Paul Easton Basketball**                       May 2020 – August 2020
*Frontend Developer*
- Used React Native to design a mobile application (iOS and Android) for Basketball trainers to upload and review player's footage
- Created application structure using React Navigation and implemented UI/UX design and user authentication
- Implemented principles of Agile Development as Scrum master to a team of six. Used Jira to streamline workflow

**Chess Engine**                       May 2021 – July 2021
- Created a chess engine and game visualization with Java. Selected moves with an alpha-beta pruning minimax search algorithm

## Publications

- Co-Author: The Megaregion – Forms, Functions, and Potential? A Literature Review and Proposal for Advancing Research. International Journal of Urban Sciences, 2023

## Skills

**Languages and Environments**
- Practical work experience with Java, Google Earth Engine, JavaScript, Typescript, Angular, SQL, Cypress
- Intermediate experience with C, C++, React Native, MATLAB, QGIS

**Software Development Tools**
- Practical work experience with IntelliJ Jira, Confluence, Bitbucket, Agile Development, Jenkins, GitHub, and Git

## Leadership

**Georgia Tech Tour Guide**                       January 2021 – May 2023
- Assisted prospective students and families in their college process by providing campus tours as an ambassador to the Institute
- Fall 2022 Tour Guide of the semester – selected to model tour procedure to new guides

**Georgia Tech Student Government – Transportation and Infrastructure Committee**                       August 2020 – May 2023
- Advanced student interests in transportation by lobbying for improved bus service and cycling accessibility on campus

**Special Topics Teaching Leader**                       August 2021 – December 2021
- Assistant instructor for GT 1801, an orientation course for first year President's Scholars at Georgia Tech