

# Rodrigo H. Morais

## Contact

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[github.com/rodigu](https://github.com/rodigu)

## Education

PhD in Informatics, University of Illinois at Urbana-Champaign

Expected Graduation:  
2027

## Professional and Research Experience

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*Information Science Teaching Assistant at UIUC*

August 2022 ~ Today

- Taught 2 discussion sessions, 60 students in total
- Graded assignments

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*Mathematics Research Assistant at Soka University*

Sept 2021 ~ May 2022

- R.A. for Katherine Perry, professor of Mathematics
- Designed algorithms for market networks
- Research Network algorithms and cycle enumerating optimizations

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*Physics Research Assistant Fall at Soka University*

Oct 2021 ~ May 2022

- R.A. for Phat Vu, professor of Physics
- Research digital simulation methods and software
- Create Python notebooks on modeling and simulations
- Hold Python tutoring hours for students

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*Software Developer at PushStart*

Mar 2021 ~ Jun 2021

- Junior JavaScript developer
- Analyzed and implemented design documents for web games
- Used Git, Slack and Jira to coordinate with team, and PIXIjs, GSAP, Yarn and JavaScript to develop web applications

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*Writing Center Research Assistant Fall*

Fall 2019 ~ Spring 2020

- R.A. for the Director of the Writing Center at Soka University
- Conducted academic research on alternative housing in Orange County
- Developed academic website with WordPress: [kristiwilsonphd.com](http://kristiwilsonphd.com)

## Additional Experience

*DS4A Fellow Spring 2021*

Spring 2021 ~ Summer 2021

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- Awarded merit-based fellowship to highly selective (4% acceptance rate) Data Science program with Harvard Professor Natesh Pillai
- Nominated a SoftBank Endowed Scholar based on outstanding work and noteworthy professional promise

*Network Science Library*

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- Wrote the first general-purpose Network Science library for Deno in TypeScript
- Implemented breadth first search, clustering, closeness centrality, assortativity and other graph data structure algorithms
- <https://deno.land/x/nets@v0.4.8>

*Network Visualization Tools*

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- Visualization apps that demonstrate uses for the network2020 library
- Chirp-firing game: <https://rmorais.itch.io/a-monstrous-constellation>
- NetworkX graph generator: <https://github.com/rodigu/nxtool>

*Email Automation Bot*

Summer 2020

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- Built a fully automated bot for email handling and database reading/writing
- Automated emailing at non-profit project created by students of color
- Fundraising saw significant gains when the bot was deployed
- Used the Mailchimp API and the Google Drive API