

# SNEHA NAIR

✉ snair@gradcenter.cuny.edu

📍 326 Bedford Avenue, Brooklyn, NY, USA 📞 (929)-305-6174 🌐 whosneha.github.io

## EDUCATION

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**City University of New York, USA**

*Sept 2023*

*PhD Theoretical Astrophysics*

**McGill University, Canada**

*Sept 2018 - May 2022*

*Honours Physics and minor Mathematics*

**Hawaii Preparatory Academy, USA**

*Aug 2014 - June 2018*

*High-School Diploma, Summa Cum Laude*

## SKILLS

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**Languages:** English, Hindi, Patois (Jamaican Creole)

**Programming:** Python, Java, HTML, C#, C++, Latex (Overleaf), R, Matlab, Django

**Software & Tools:** CAD, Sketch-Up, CIAO, Linux, Bash, Word, Excel, PowerPoint, NASA JOVE

## RESEARCH EXPERIENCE

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**McGill University, Montreal, Canada**

*Sept 2020 - September 2022*

*Researcher*

- Presently, working on publishing first author publication detailing new ULXs in NGC 4261 as well as a study of X-ray binaries hosted by NGC 4261's globular clusters (submitted for review to MNRAS, manuscript available upon request).
- Using Chandra's X-Ray Database and software 'CIAO' to study the presence of Ultra-Luminous X-Ray sources (ULXs) hosted by globular clusters in early-type galaxies (NGC 4261 and NGC 1316).
- Supervisor: Professor Daryl Haggard and Dr. Kristen Dage

**ScopeSys, Vancouver, Canada**

*October 2022 - November 2023*

*Data Analyst/ Software Engineer*

- Presently, working on analysing the data produced by a unique single molecule microscopy technology, CLiC. From the data, we analyze the time sequences of individual reactions and on/off rates for different materials.
- Responsible for migrating the software from Matlab to a Django and Python based platform.
- Supervisor: Professor Sabrina Leslie and Doctor Romain Berti

**University of Montreal, Montreal, Canada**

*May 2020 - Sept 2020*

*Summer Research Intern*

- Documenting phase transitions for substances in order to search for Quantum Spin Liquid behavior.
- Used CAD software to design enclosure for substances to sit in a heat sink at milliKelvin temperatures (worked closely with Oxford Instruments).
- Supervisor: Professor Andrea Bianchi

**McGill University, Montreal, Canada**

*Sept 2018 - June 2019*

*Lab Assistant/Researcher*

- Worked on technical skills such as: testing circuit boards, reorganizing the lab, re-documenting old files.
- Worked closely with Dr. Dallas Wulf to pursue a project regarding the feasibility of SETI type searches with the intention of establishing a baseline test for the CHIME telescope.
- Supervisor: Professor Matt Dobbs

## PUBLICATIONS

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1. **S. Nair**, et al, "The X-ray Point Source Population hosted by Globular Clusters in Elliptical Galaxy NGC 4261", 2022, Monthly Notices of the Royal Astronomical Society
2. K.C. Dage, A. Kundu, E. Thygesen, A. Bahramian, J.A. Irwin, D. Haggard, T.J. Maccarone, **S. Nair**, M.B. Peacock, J. Strader, S.E. Zepf, "Three Ultraluminous X-ray Sources in NGC 1316", 2021, Monthly Notices of the Royal Astronomical Society

## WORK EXPERIENCE

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**The Boulevard Club, Toronto, Canada**

*Busboy*

*June 2019 - Aug 2019*

**Macmillian Orchards, Ajax, Canada**

*Grocery Clerk*

*June 2020 - Sept 2020*

**Barranco, Montreal, Canada**

*Dishwasher & Line Cook*

*June 2021 - January 2022*

**Vandale, Montreal, Canada**

*Dishwasher & Line Cook*

*June 2022 - August 2022*

## AWARDS

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- McGill Bursary Award (\$40,000 CAD)
- Science Undergraduate Research Award University of Montreal (\$5500 CAD)
- McGill Science Undergraduate Research Award (\$4500 CAD)
- Thomas Webb Marr Physics Award (\$2500 USD)
- AP Scholar With Distinction
- International Surf Scholar (\$1000 USD)
- Versan Educational Outreach Award (\$1000 USD)
- Girl's Wrestling Most Valuable (\$500 USD)
- Girl's Cross Country Most Improved (\$500 USD)
- Girl's Basketball Team Player Award (\$500 USD)
- NASA Girl Scout's Gold Award
- National Academy of Future Scientists and Technologists Award for Excellence

## EXTRA CURRICULAR

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Oil Painting  
Linoleum Printing  
Hiking  
Ballet  
Music Production  
Running/Cross Country  
Animation

## REFERENCES

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**Daryl Haggard**

McGill University, Research Supervisor  
daryl.haggard@mcgill.ca

**Matt Dobbs**

McGill University, Research Supervisor  
matt.dobbs@mcgill.ca

**Andrea Bianchi**

McGill University, Research Supervisor  
andrea.bianchi@udem.ca

**Fidel M. Vazquez**

Barranco, Executive Chef and Owner  
fidelvazquez@gmail.com