

# SNEHA NAIR

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## EDUCATION

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**McGill University, Canada**

*Sept 2018 - May 2022*

*Honours Physics and Mathematics*

**Hawaii Preparatory Academy, USA**

*Aug 2014 - June 2018*

*High-School Diploma, Summa Cum Laude*

## SKILLS

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**Languages:** English, Hindi, Hawaiian

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

**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 - present*

*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.
- 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.
- Presently, working on publishing a paper detailing three new ULXs in NGC 4261.
- Supervisor: Professor Daryl Haggard and Dr. Kristen Dage

**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

**Hawaii Preparatory Academy, Hawaii, USA**

*Sept 2016 - June 2018*

*Researcher*

- Worked with Dr. Bill Wiecking on NASA's Hawaii Space Exploration Analog and Simulation Project.
- Created and managed telemetry systems, dashboards and a 20 minute delay to simulate communication times between the habi-nauts and the outside world (like that of comms. from Mars to Earth).
- Built and designed radio telescope using NASA JOVE kit.

## PUBLICATIONS

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1. 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
2. **S. Nair**, et al, "X-ray Binaries in NGC 4261's Globular Clusters", 2022, *in progress*

## WORK EXPERIENCE

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**The Boulevard Club, Toronto, Canada**

*June 2019 - Aug 2019*

*Busboy*

**Macmillian Orchards, Ajax, Canada**

*June 2020 - Sept 2020*

*Grocery Clerk*

**Barranco, Montreal, Canada**

*June 2021 - October 2021*

*Dishwasher & Line Cook*

## AWARDS

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- McGill Bursary Award (\$40,000 CAD)
- Science Undergraduate Research Award University of Montreal (\$5500 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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Painting  
Drawing  
Hiking  
Ballet  
Making music  
Running/Cross Country

## REFERENCES

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**Daryl Haggard**

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

**Matt Dobbs**

McGill University, Research Supervisor  
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**Andrea Bianchi**

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**Fidel M. Vazquez**

Barranco, Executive Chef and Owner  
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