SNEHA NAIR

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EDUCATION

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

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

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 (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 - present

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

- 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, "The X-ray Point Source Population hosted by Globular Clusters in Elliptical Galaxy NGC 4261", 2022,(*submitted for review to*) Monthly Notices of the Royal Astronomical Society

WORK EXPERIENCE

The Boulevard Club, Toronto, Canada

Busboy

Macmillian Orchards, Ajax, Canada

Grocery Clerk

Barranco, Montreal, Canada June 2021 - January 2022

Dishwasher & Line Cook

Vandale, Montreal, Canada June 2022 - August 2022

Dishwasher & Line Cook

AWARDS

- 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

Oil Painting

Linoleum Printing

Hiking

Ballet

Music Production

Running/Cross Country

Animation

REFERENCES

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

June 2019 - Aug 2019

June 2020 - Sept 2020