Numa Karolinski

(American/French)

Education

2015 – 2020 **Bachelor of Science, Physics**
Bachelor of Science, Computer Science
McGill University, Montréal (QC), Canada.

- Physics provides analytic problem-solving skills and an understanding of nature, while computer science advances logical reasoning as well as yielding practical and marketable applications.
- Honours thesis: Analytic & numerical solutions to the inverse problem of exoplanet albedo maps.
- **McGill Space Group** (**MSG**) payload subteam leader, and website developer.

Work Experience

May – Now 2021 (indefinite) **Data Analyst / Software Developer**
Remote, (Dalkeith, Canada).

- Gaining professional experience in a highly specialized and technical industry by analyzing table game data and using full-stack tools such as *C# Angular*, *Git*, *JS/TS* and the *Scrum* workflow.

Aug – Now 2020 – 2021 (indefinite) **Independent Full Stack Developer**
Home, (Dalkeith, Canada).

- Working on a full stack intelligent automated schedule manager.
- Includes a Python/Django/SQL backend and a React.js/Bootstrap/Webpack/Redux frontend.

May – Aug 2020 (16 weeks) **iREx Summer Internship & MSI Summer Student Program**
Remote, (Dalkeith, Canada).

- Continued senior year honours research thesis on exoplanet analytic reflected lightcurves.
- Optimized *Python* program *QEARL*; compared *QEARL* to programs *starry* & *exocartographer*.
- Researched under the supervision of Prof. Nicolas Cowan (McGill University).

May – Aug 2019 (16 weeks) **Summer Undergraduate Research Position**
Canadian Institute for Theoretical Astrophysics, (Toronto, Canada).

- Coded in *Python* a software that automatically generates gravitational microlensing amplification curves and mass distributions, and developed a black hole discovery methodology.
- Researched under the supervision of Dr. Wei Zhu, with a lot of independence.

Publications / Awards

Publications *Detecting isolated stellar-mass black holes in the absence of microlensing parallax effect.* Numa Karolinski, Dr. Wei Zhu. MNRAS: Letters, Volume 498, Issue 1, Oct. 2020.

Awards 2020 TEPS CREATE Program Funding, Rubin Gruber SURA Recipient.
2019 CITA NSERC Undergraduate Summer Research Award (rejected).

Computer / Software Skills

Languages *Python, (Postgre)SQL, C/C#/C++, Bash, Java, JS/TS, HTML, CSS/SASS, MATLAB*
Libs./Other *SciKitLearn, TensorFlow Keras, React.js, Django, Git(hub), UML, Docker, MS Office*

Languages / Background

Language English (Native), French (Intermediate)
Countries of Residence: United States, France, and Canada [present, PGWP]

Volunteer National Honor Society Volunteer (Various Activities), Introductory Python Lecturer, ED&I Undergraduate Committee Climate Survey Taskforce Team

Interests Running, Piano & Violin, Astrophysics & Cosmology, and Competitive Video Games

21520 Laggan-Glenelg Road – Dalkeith, ON Canada, K0B 1E0
+1 520-342-8469 • *numa.karolinski@mail.mcgill.ca*
numa-karolinski-5a0a861b5 • *NumaKarolinski* • *Personal Website*