Breki Pálsson

Address

Grenimelur 47
107 Reykjavík
Iceland

+354 777 4527
palsbreki@gmail.com

Languages

Icelandic: Native,
English: Advanced,
French: Intermediate,
Danish: Pre-intermediate

Programing

Python, C++ , C, R, Java,
SAS, SQL, TensorFlow,
Sagemath, Magma, Latex.

Education

2023	**Université du Luxembourg**	Mention Bien
	Research internship resulting in a masters thesis under the supervision of Professor Gabor Wiese	
2022 - 2023	**Sorbonne Université**	Mention Bien
	M2. Mathématiques fondamentales A collaborative program between three universities in Paris focusing on fundamental mathematical research.	
2021 - 2022	**Sorbonne Université**	Mention Bien
	M1. Mathématiques et applications	
2018 - 2021	**University of Iceland**	First class with distinction
	B.Sc. Mathematics	
2019	**McGill University**	
	Exchange Program	
2014 - 2018	**Menntaskólinn í Reykjavík**	
	Junior college	

Projects and talks

2023	**Investigating Residue Degrees in Number Fields related to Modular Forms and their Connections to Permutation Cycles.**
	A talk given in the Mathematics Colloquium at the University of Iceland.
	On the Asymptotic Behavior of the Coefficient Field of Newforms Modulo p
	Five months masters project in collaboration with the University of Luxembourg and Sorbonne University, developing and programming algorithms to calculate statistics on number fields connected to special modular forms, PDF.
	Modular Forms and Congruences
	A presentation about the basic theory of modular forms for a Mathematical Seminar in Farum PDF
2022	**The Hasse-Minkowski Theorem**
	First year Masters project under the supervision of Antoine Ducros, PDF
2021	**Symplectic varieties**
	Bachelors theisis under the supervision of Valentina Giangreco M Puletti, PDF (in Icelandic)

Attended Conferences and mini courses

2023   **Université du Luxembourg**   Seminar
Bilux, a PhD student seminar meeting between the University of Luxembourg and the University of Milano-Biocca

Mathematical Seminar in Farum   Seminar
Student organized seminar

2022   **Aix-Marseille University**   Master class
Topology and algebra : knots, algebraic curves and singularities

Eötvös Loránd University   Summer School
Summer school in number theory

EPFL   Seminar
Number Theory Days

Notable Achievements

2021-2022   **Fondation Sciences Mathématiques de Paris**   Scholarship
Received the two-year PGSM scholarship from the Fondation Sciences Mathématiques de Paris to pursue my master's degree at Sorbonne Université

2019   **Reboot Hackathon**   Contestant
First place for the project; Lighting up Reykjavik where tourists can obtain information about interesting places in Reykjavík by talking to basalt pillars with the help of artificial intelligence or via a website.

2017, 2018   **International Mathematical Olympiad**   Contestant
One of Iceland's 6 representatives, results.

2015-2018   **Various competitions**   Contestant
Icelandic National Mathematics Contest
2017, 2016 (6th and 2rd)

BOXIÐ - innovation and construction competition
2016 (3rd)

Nordic Mathematical Contest
2018, 2017, 2016

Icelandic National Physics Contest
2018, 2017 (18th and 12th)

Junior College Programming competition
2018

Previous Employment

2021

Landsbankinn *Internship*

In charge of all the day-to-day work of the market risk department, such as mortgage calls between foreign banks and margin calls to the bank's customers. Responsible for the daily report on the foreign exchange balance to the Central Bank, along with monitoring and analysis of various areas regarding risk.

2020

StudyHax *Creating educational content*

Responsible for the creation of teaching materials for self-study in mathematics intended for high school students.

Genki Instruments *Software development*

Three-month research project on time series classifiers for a wearable accelerometer and gyroscope combo. Our four-man intern team created a classifier able to accurately classify both complex and inconspicuous hand or finger gestures in real time and interpret them as discrete commands.

University of Iceland *Teaching*

Assistant Teacher for Mathematical Analysis II

2019

Jafna *Software development*

A startup where I participated in the design and development of a peer-to-peer banking solution that enables users to lend to each other, without intermediaries.

2017-2018

Eimskip *Software development*

Responsible for the development of an interface for a calculator that calculates container shipping charges by location, size and volume between different countries easily.

2017 - 2020

Tutoring Mathematics *Teaching*

Private tutoring