Sacha Perry-Fagant

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EMPLOYMENT

- **Smallbrooks – Software Developer (November 2018-Oct 2021)**
  - Worked on Smallbrooks crowdfunding platform as a service
  - Scala, Java, JavaScript, React, SQL, Elm, GraphQL
  - Full stack development
- **Jonar – Software Developer (March-August 2018)**
  - Worked on Paragon ERP: cloud-based ERP software
  - JavaScript frontend and backend
  - Agile development using Scrum
  - Researching of prototype software
- **Freelance Web Scraping (2018)**
  - Used Python to scrape information from websites/PDFs
- **Distributed Digital Music Archives – Software Developer (May-December 2017)**
  - Worked on an online application that allows users to automatically classify symbols
  - JavaScript frontend and Python backend
  - Django, Ajax, jQuery

SKILLS

Computer

- Python
- C#
- Java
- Scala
- JavaScript
- Latex
- Mathematica
- Frontend (React, Html, Elm)
- OOP
- Git
- SQL
- MATLAB
- OCaml
- MS Office Suite
- Adobe Premiere Pro
- Adobe Photoshop
- Functional programming

Performance

- Public Speaking
- Theatre Performance
- Classical Musical Performance
- Choir

EDUCATION

- University of Copenhagen Masters in Quantum Physics (Sep 2018-August 2020)
- McGill Bachelors of Physics and Computer Science (2013-2017)
- Kyoto KUINEP Exchange (Spring 2016)
- PAL Canadian Firearms Safety Course

LANGUAGES

- English (Native)
- French

ACADEMIC PROJECTS/COMPETITIONS

- **Master's Thesis, Niels Bohr Institute (August 2020)**
  - Master's degree in quantum physics, specializing in high energy physics and cosmology
  - Thesis: Myers-Perry Black Holes as Blackfolds
  - Applied the blackfold effective theory to Myers-Perry black holes
  - Energy momentum tensor: linearized gravity, Brown-York
  - Higher order perturbative corrections of black brane metric
- **Undergraduate Research Project McGill (June 2018)**
  - Data analysis on brightest cluster galaxies to investigate the relationship between the magnitude gap and redshift of a cluster
  - Python was used to classify the galaxies, carry out calculations, and plot the results.
- **McHacks (2018)**
  - Won second place in a competition using machine learning (neural network) to classify data
  - Used OpenCV to process images and detect shapes
- **McGill Physics Hackathon (2017)**
  - Created an online application to allow visualization of electric and magnetic field lines
  - Used Flask microframework to connect Python backend and JavaScript frontend
- **Machine Learning Project (2017)**
  - Language/image processing and classification
  - Used Python to employ k-nearest neighbours, neural networks, naive Bayes
- **Ubisoft Game Lab (2016) and McGame Jam (2017)**
  - Used C# to create games using the Unity game engine.

HOBBIES

- Film Making/Editing
  - CanWEA Friends of Wind- Most creative submission (2016)
- Programming
  - Development of apps/websites for use at private events
- Singing
  - Københavns Bachkor (Nov 2019 – Oct 2021)
  - Les Muses Chorale Choir (2013-2018)
  - SCRUM (Montréal Fringe Festival 2017)
  - Grade 7 Royal Conservatory Voice – First Class Honours (2013)
  - Advanced Rudiments Theory Exam – Distinction (2013)
  - SORMTA Award for Highest Grade 7 Voice Exam Mark
- Writing
  - Research papers
  - Software Documentation
  - Creative Writing