

# Ellington Kirby

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Currently enrolled in a Masters in Math and Computer Science with a focus on Machine Learning at Paris Sciences et Lettres University. Former Software Engineer; workplace experience with machine learning led to a decision to redirect my career to pursue research.

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## EDUCATION

### Paris Sciences et Lettres University

*Masters in Computer Science and Math - Information, Decisions, Data*  
Dauphine Campus

**Paris, France**

*September 2022 - May 2023*

16.06 average

### Binghamton University, State University of New York

*The Thomas J. Watson School of Engineering*  
*Bachelor of Science in Computer Science*

**Binghamton, NY**

*2012-2016*

3.66 overall GPA

### Research Experience:

#### Data Driven Trajectory Generation and Extension of Leiden Algorithm for Graph Clustering

*June 2023 - September 2023*

*GRETTIA Lab, Université Gustave Eiffel, Champs-sur-Marne*

- In partnership with University of Berkeley on the CIRCLES team prototyped RNN based sequence models for Trajectory Generation and Prediction
- In partnership with researchers from EPFL created a state of the art algorithm for graph clustering based on the Leiden Algorithm.
- Successfully applied the algorithm to identify areas of road networks which experience similar traffic conditions.

#### Integration of Structured Knowledge by Specialized Text Synthesis: [link](#)

*February 2023*

- Research assistant on project to train BERT language models using text generated from Unified Medical Language Systems
- Built pipelines to fine tune and evaluate baseline BERT models on a variety of Biomedical Question Answering Tasks

#### HearHere: smartphone based audio localization using time difference of arrival: [link](#)

*October 2016*

- Demo presented at Mobicom 2016
  - Analyzed scholarly work on audio ranging to develop HearHere, an Android Application which implements an advanced audio localization algorithm in a consumer application, turning a surface into a MIDI controller.
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## WORK EXPERIENCE

### Snap Inc., Software Engineer - Android

**Paris, FR**

*Lead Android Engineer on the Zenly Conversations Team*

*February 2020 - July 2022*

- Built and maintained dozens of new features across the Zenly chat, used by tens of millions of users daily
- New features contributed to a 33% increase in daily Zenly chat usage, scaling to millions of messages sent per day
- Evaluated state of the art methods using Deep Learning to explore the problem of automatic lip sync generation
- Implemented a system of Audio feature detection and Formant extraction via Linear Predictive Coding in an attempt to build an automated Lip Sync generation algorithm for Zenly Voice Notes

### FanDuel, Android Engineer

**New York, NY**

*Lead Android Engineer at DRAFT, a Fantasy Sports gaming app, later acquired by FanDuel*

*October 2017 - January 2020*

- Lead and solo Android Developer on DRAFT fantasy sports app

### Prolific Interactive, Android Engineer

**New York, NY**

*Mobile Agency*

*October 2016 - October 2017*

- Android engineer for multiple projects
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## Open Source Contributions:

- [Rinascimento Splendor Framework](#): A framework to train game playing AI on the Splendor board game. Helped with the build system and currently working on new AI strategies.
  - [Python Tweet Preprocessor](#): Tool for removing tweet contents from text. Added utilities for file processing.
  - CameraX Library: Identified several high priority issues with video recording on the CameraX library and the Pixel camera system. Reported to Google and assisted in their resolution.
  - [LinkedIn LiTr Video Transcoding](#): Extended fragment shader to allow implementation of video shaders. Created Grayscale shader
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## SKILLS

**Programming Languages:** Python, Kotlin, Java, C++, Go, C#

**Language:** English, French

**Personal Interests:** Cooking, Guitar, Game Design, Science Fiction and Fantasy literature, exploring France