

# Konstantinos Kastritis

Email: [dinokastritis@gmail.com](mailto:dinokastritis@gmail.com) Mobile: (905) 960-1970

Website: <https://kkastr.github.io>

Github: [github/kkastr](https://github.com/kkastr)

LinkedIn: [linkedin/kkastr](https://www.linkedin.com/in/kkastr)

Google Scholar: [scholar/kkastr](https://scholar.kkastr)

## Experience

### **cNabLab** - *Research Associate*

January 2022 - Present

- Research in polymer physics and code development.
- Train new students.

### **cNabLab** - *Graduate Research Assistant*

September 2016 - June 2019 // Oshawa, ON

- Conducted research in polymer physics, and collaborated with various experimental physicists to provide theoretical insight into their data.
- Developed and maintained code for added functionality to molecular dynamics packages in Python and CUDA.
- Maintained and expanded internal computer network.

### **Ontario Tech University** - *Teaching Assistant*

January 2015 - December 2021 // Oshawa, ON

- Taught a wide array of physics and computer science courses.
- Aided with increasing the amount of programming included in the physics program.

## Projects

### **Reddit Sentiment Analysis** - [kkastr/reddit-sentiment/](https://github.com/kkastr/reddit-sentiment/)

Analyze the sentiment of comments using the reddit api to scrape post data. Obtain information such as the sentiment breakdown, average sentiment per post, and more.

### **Predicting Stock Prices** - [kkastr/stock-price-predictions/](https://github.com/kkastr/stock-price-predictions/)

Generate predictions for the closing value of securities by using Long Short Term Memory (LSTM) neural networks to model the time series of the stock price.

### **Brownian Dynamics in CUDA** - [kkastr/cuda-brownian-dynamics/](https://github.com/kkastr/cuda-brownian-dynamics/)

Brownian dynamics written for gpus, making it easy to scale to tens of thousands of particles for faster results and better statistics on whatever physical system you wish to investigate

## Skills

### **Programming languages**

Python, C, CUDA, SQL, Typescript

### **Platforms**

Git, Docker

## Education

### **Ontario Tech University**

*Bachelor of Science - Physics*

September 2012 - May 2016

Minor in Mathematics.

Awarded NSERC undergraduate research award.

Honors Thesis: N-Body Simulations of Dark Matter Halos

### **Ontario Tech University**

*Master of Science - Physics*

September 2016 - June 2019

Thesis: Computational Studies of Semiflexible Polymer Dynamics Under Confinement.

## Languages

Native Greek. Fluent in English.