CNS2025: Homework 1

Due: 2025-09-10 23:59

Question 1

Please describe the most sophisticate computer programs that you have written so far.

For example,

> A web-based, machine-vs-human tic-tac-toe game written in Javascript.

Question 2

Please list the programming languages that you have any experience in.

For example,

> C++: fluent, written tens of thousands lines of code over many years.
> Python: written a couple programs to process data from experiments.
> Javascript: used it twice to create web interfaces for demonstration purpose.

Question 3

What computer system do you have for school work?

- **Type**: Desktop, Laptop, Tablet, or Smart phone
- **Operating System**: Windows, Mac OS, Android, or some other that you will describe
  — (What is the **version** of the OS?)
- If known, what are the **CPU**? **GPU**? **Memory size**?

Exercise 4

Setup your Jupyter Lab/Notebook environment for the work of this class. Get the data file, hw01-dat.txt, which contains 2D position data of an animal over a period of time.

- Make a plot of the x and y coordinates versus time t of the animal.
- Make a plot of the animal trajectory (x versus y).