# Tutorial InstallGurobi(text)

December 30, 2023

### 0.0.1 An Introductory Beginner's Guide to solving Optimization Problems in Python!

**Objeective**: - **Get a quick start on working with Python** - Learn how to install the ***Pyomo*** package for solving optimization problems - **Learn how to install the Gurobi solver, obtain an academic license (for multiple PCs) and install the accompanying Python package**

**NB**: Note that this is meant to serve as a quick startup guide and this tutorial would not go into details on Python programming or the use of the ***Gurobipy*** package.

Follow along and enjoy the ride

**Quick Introduction to Python Programming**   Hopefully, if you are following this from a Jupyter notebook, then you definitely have Python installed . Otherwise, I've got you still!

- Follow this reference notebook to get you started in installing and using the Jupyter notebook in no time .
- Next, follow the listed tutorials to learn about the following topics in Python programming in their order:
    - Python Varaiables and Constants
    - Python Operators
    - Data Types in Python

Note that the above resources are ***what you would need*** to get started with the Pyomo tutorial. Check out other resources for further learning.

**Installing Gurobi**   Ultimately, when we start developing optimization problems using Pyomo, we would often need solvers such as Gurobi for solving the problem. So we would be going ahead of ourselves here to install the Gurobi solver and obtain an academic license.

**Follow these steps:** - Visit the Official Gurobi registration webpage to register and create an account. **Be sure to click on the "Academic" under the user section**

- On completion of the forms, you get a verification email. Complete the verification and then click on the login botton at the top right of the Gurobi webpage
- Now we are ready to get our academic license . Once you login, visit the Gurobi User Portal to request for your academic license
- Copy and store the one-time license key after requesting as we would be needing it.

- Once you have a license, your next step is to install the software.

- To activate your license, after installing the software, open up the Gurobi Interactive shell. **NB:** Ensure you are connected to the university network (either via Wifi or VPN) before opening the shell.

- Remember our license key from earlier? Yup, this is where it goes. Once you hit enter, you should see something like this on your screen

- Congratulations on completing your installation of the Gurobi software    . Now is a good time to take a breather!!