

SCITAS Setup Guide

1. Prerequisites

- Install **Visual Studio Code**
- Install the following VS Code extensions:
 - Remote - SSH
 - Remote - SSH: Editing Configuration
 - Remote Explorer

2. Connect to SCITAS

1. In VS Code, click the **green icon** in the bottom-left corner.
2. Select “**Connect to Host...**”
*Note: You must be connected to the **EPFL network** or use **VPN**.*
3. Connect using:

```
ssh <username>@izar.hpc.epfl.ch
```

Replace <username> with your **Gaspar username** (typically your last name).

4. Choose **Linux** when prompted, then choose a password and save it somewhere secure. It takes **time** to reset.

3. Open Your Working Directory

After connecting:

- Click “**Open Folder**”
- Navigate to:

```
/home/<username>
```

This is your personal directory.

Note

In the tutorial video, we used `/scratch/izar/<username>` because the `/home/` directory was full. You can do the same if needed.

Be careful — `/scratch/izar/` is a **temporary directory**: files may be deleted automatically.

4. Set up and activate a virtual environment

```
module load gcc python
python3 -m venv ~/venv/project
source ~/venv/project/bin/activate

# Install the required packages (replace with actual package
  ↳ names or use a requirements file)
pip install <package1> <package2>
# or
pip install -r requirements.txt
```

To exit the environment, simply run: `deactivate`

4.1 (Optional) Set Up Miniconda

To use Conda, install Miniconda with:

```
mkdir -p ~/miniconda3
wget https://repo.anaconda.com/miniconda/Miniconda3-latest-
  ↳ Linux-x86_64.sh -O ~/miniconda3/miniconda.sh
bash ~/miniconda3/miniconda.sh -b -u -p ~/miniconda3
rm -rf ~/miniconda3/miniconda.sh
~/miniconda3/bin/conda init bash
~/miniconda3/bin/conda init zsh
```

5. Create a Job Script (.sbatch)

To submit jobs, create a script like `name.sbatch`:

```
#!/bin/bash
#SBATCH --chdir=/home/<username>/project # Directory to
  ↳ execute the code in
#SBATCH --ntasks=1
#SBATCH --account=civil-459
#SBATCH --gres=gpu:1 # GPU resources
#SBATCH --mem=50G # Memory
#SBATCH --time=1:00:00 # Time limit
#SBATCH --output=logs/log_%j.log # Log file
```

```
#SBATCH --error=logs/err_%j.log          # Error file

source ~/.bashrc
conda activate env
python train.py
conda deactivate
```

6. Run and Monitor Jobs

Submit a job:

```
sbatch name.sbatch
```

You'll receive a job ID.

Check job status:

```
Squeue
```

If your job doesn't appear, it may have finished or failed.
If the job appears but has no start time, it is waiting for resources.
Note: The more resources you request (e.g., multiple GPUs, long runtime), the longer you'll wait.

Cancel a job:

```
scancel <jobID>
```

Example:

```
scancel 2678394
```

Use this to stop unnecessary jobs and free cluster resources.

Happy computing on SCITAS!