Advanced Python for Economists, Part II A short course for the US-ITC

Jason DeBacker January 16, 2025 It's great to be back!

What'd we cover in October?

- Numerical optimization theory and application in Python
- Solving dynamic programming problems
- Just in time compilation
- Computation on the GPU
- Parallel processing
- Handling big data (file I/O, efficient data types, paralellizing compute)
- Parameter processing and validation

What's left?

- Best practices for sparse matrices
- Version control systems
- Workflow: text editors, using the command line, code formatting
- Unit testing
- Continuous integration
- Using virtual environments
- Documenting software

Where can you find materials

All course materials are in the GitHub repository for the course:

https://github.com/OpenRG/US-ITC

Daily Schedule

- Thursday, January 16
 - → 9:00am-noon: Best practices with sparse matrices
 - → noon-1:30pm: Lunch
 - → 1:30-3:30pm: Applying sparse data methods
 - → 3:30-4:30pm: Version control
 - \rightarrow 4:30-5:30pm: Office hour

- Friday, January 17
 - → 9:00-10:30am: Workflow basics
 - → 10:30-noon: Unit testing, CI, virtual environments
 - → noon-1:30pm: Lunch
 - \rightarrow 1:30-2:30: Documentation

ALSO: Office hours next week, 1-3pm on Thursday, Jan 23.