

Advanced Scientific Programming in Python

A G-Node Summer School
Berlin, Germany, August 31 → September 4, 2009

Evaluation Survey Results

Method

The survey has been administered with a web interface created with the LimeSurvey software available at: <http://www.limesurvey.org>

All answers have been submitted within September 15, 2009.

Values have been computed as average of the available responses. No answer was mandatory.

The free-text field replies have not been edited and are presented in their original form, including typos.

Attendants statistics

Attendants:	30	
Female:	6	20%
Non-German:	16	53%
Institution abroad:	14	47%
Institution Berlin:	4	13%
PhD Students:	19	63%
Post-Docs:	8	27%
Master Students:	3	10%
Python crash course:	21	70%
Completed surveys:	29	

Lectures & Exercises

Q: Please grade the lectures and all lecturers according to the provided criteria.

[Grades: "Very Good"=1, "Good"=2, "Neutral"=3, "Bad"=4, "Very Bad"=5]

[The criteria are defined as follows:

Interest: How interesting was the subject of these lectures?

Comprehensibility: How clear and comprehensible was the material presented? Was it easy to follow the lecturer? Did he take time to answer students' questions?

Material: Evaluate the quality of the teaching material provided by the lecturer, e.g. the clarity of the slides, references given, scripts, exercises etc.

Fun: How much fun were these lectures?

Support: Evaluate how well you felt supported by the lecturer. Was he helpful when you had questions?]

	Interest	Comprehensibility	Material	Fun	Support	
Overall	1.6	1.8	1.6	1.6	1.4	1.6
Bartosz Telenczuk	1.2	1.5	1.6	1.7	1.2	1.4
Pietro Berkes	1.4	1.6	1.6	1.7	1.4	1.5
Niko Wilbert	1.7	1.9	1.8	1.9	1.6	1.8
Jens Kremkow	1.7	2.0	2.0	2.0	1.7	1.9
Michael Schmuker	1.7	1.7	1.7	1.8	1.7	1.7
Eilif Muller	2.1	2.7	2.3	2.3	1.9	2.3
Tiziano Zito	1.6	1.6	1.6	1.5	1.5	1.6

Note: values in gray are computed as an average over the grades in all criteria.

Q: Would you have liked to hear some other topics in the lectures? Would you have skipped some of the topics in the lectures?

1. I would have skipped the multi thread part, because it was really specialized and didn't match well with all the other subjects.
2. everything was relevant. parallel computing was relevant but the presentation was too complex.
3. I would have liked additional lectures and exercises on python libraries for using neural networks, data processing and machine learning.
4. put SVN into day 0, it's a basic skill IMHO;- during the multiprocessing lecture, say more about required hardware (can be used effectively on one machine, requires a cluster, requires a supercomputer, ...) and ask students about their infrastructure and give examples how to use it (e.g. powerful workstation: use multiprocessing; Sun Grid Engine: use ...)
5. I would like to hear how to interface Python code with C/C++.I couldn't understand the parallelization issue. So much details, could not absorb the basics.
6. In Jens's lecture, the listing of various functions was pretty boring: an example how to solve one concrete problem using a few of the functions would be more interesting. Also e.g. the `numpy.arange()` need not be explained in detail: I think it's better to say that it is exactly the same as `range()`, but returns an array.
7. For me, parallel programming was not so useful. More on matplotlib would have helped. Perhaps some thoughts on how to best document software too. Nevertheless, there was a tremendous amount of useful information packed into a short time.
8. more details/examples on design patterns would be interesting to have general/easy/short rules for good programming practice
9. data handling (database access, modules for structured file access)
10. quite a good equilibrium actually!
11. yes, it would be nice to hear a bit more about scientific programming (as the name of the course suggests): so e.g. some linear algebra and signal processing in python
12. A bit more about neuroscience!
13. No.No.

14. as I have already some experience of using numpy/scipy this lecture was not so useful/interesting to me, but of course it was useful for those new to python. i would maybe like to have heard more about how to structure and divide work when developing software in teams.

Q: Any further comments on the lectures?

1. I liked the mixture of lectures and exercises, that's a good balance you have found.
2. it was very good to have exercises related to the final project, e.g. graphs, travelling salesman. in most cases most of the groups did not finish all the exercises. the negative aspect about this is that the exercises were designed to cover the topics presented in the lectures. thus we did not manage to cover all the topics via exercises. maybe next time the exercises could be reduced in scope so that it would be more feasible to go through all of them during the practice time.
3. They were already great, I have no particular suggestion on how to improve them.
4. I missed some more interactivity in the lectures (i.e the tutor resolves a problem and we do it at the same time in our computers). Otherwise the course was excellent! I really enjoy it!!!
5. The pyreport way of presentation (Jens) was very easy to follow and the documents are there for any further need. So, this was the best way I think with Pietro's 2-3 slides and a Demo session style. Instead of showing all the code, writing it like writing on the blackboard is a good technique because I could follow what is going on. And, it is very likely that the lecturer makes some small mistakes in this way, but it added to the comprehension I think. When someone sees the bug and contributes to what is seen on the screen during the lecture, I also learn from this. Going step by step with organized demo sessions was really cool. Additionally, putting the materials online before the lecture date was also nice because I went over the slides of day0 and day1 at the hostel so I did not spend much time to understand the code shown in the slides during the courses. And I had some questions in mind before coming to the lectures about the parts I couldn't understand in slides.
6. If the lectures were not as interesting as they could be, it's because they were, in my opinion, too much directed at beginners. In reality many people listening to the lecture already knew the tools and libraries presented (especially numpy) and would have been better served by showing the trickier things you can do. For example, indexing tricks on arrays. Nevertheless, I think that the lectures were generally really good, and Pietro's and especially Eilif's just excellent.
7. It's hard to teach a language to newbies in just one day but day 0 was the weakest part of the school.
8. It would be significantly enhance the lectures to provide printouts before hand, perhaps on the day before, so that students could already come to the lecture having something in hand.
9. Overall very good! No real suggestions on how to significantly improve the program. Good work!
10. The course was well organized and tutors were highly motivated. Although I ranked the parallinging stuff so bad, it might be interesting for others, it was just too much for me and I was not really interested in it. I think it was also good to include some non-python specific methods as organization and teamwork in the course, which should be continued with the hope that some people might learn something from that part of science as well (or at least hear about it ;))
11. I think the attribution of time to lectures and excercises should have been reversed. 1.5 Lecture and 2h practice. Plus the kind of demos Pietro used within his lecture were helpful and had been even more so had we had a chance to just type them ourselves while he was doing it. Not in an extended manner, but just doing it ourselves.
12. It was well presented. Before the course I expected to get an overview about the possibilities you have using Python, and this expectation has been fulfilled completely. I now have a better understanding of all the Python related 'stuff', such as the libraries, the plotting tools, even Python as an interface for other software. Thank you very much for this. Furthermore, the lectures and exercises were well organized. The lectures prepared for the exercises and the exercises gave a good start for using the corresponding syntax in that context. Finally, I liked a lot the interactive mode of the lectures, i.e. the switch between slide presentation and manual execution of corresponding examples. This was often very helpful for following the lectures.
13. overall a very interesting, nice and well organized course!
14. It would have been easier to follow those lecutres that covered lots of new commands if they had been typed into a terminal interactively rather than read out from a pdf/editor

Programming Project

Q: Please grade the programming project and all tutors according to the provided criteria.

[Grades and criteria defined as above]

	Interest	Comprehensibility	Material	Fun	Support	
Overall	1.7	1.7	1.5	1.4	1.3	1.5
Bartosz Telenczuk	1.4	1.3	1.4	1.5	1.6	1.4
Pietro Berkes	1.3	1.3	1.3	1.4	1.6	1.4
Niko Wilbert	1.3	1.5	1.3	1.4	1.6	1.4
Jens Kremkow	1.4	1.5	1.5	1.4	1.8	1.5
Eilif Muller	2.0	2.2	2.0	1.9	2.1	2.0
Michael Schmuker	1.4	1.5	1.4	1.5	1.7	1.5
Tiziano Zito	1.4	1.4	1.4	1.4	1.6	1.4
Valentin Haenel	1.5	1.6	1.7	1.5	1.5	1.6
Rike Schuppner	1.3	1.3	1.5	1.3	1.2	1.3

Q: Any further comments on the programming project?

1. very interesting, very well organized. the winning team had really good strategy, respect for them. but it was not so fun to watch their matches. maybe next time the game can be modified that if a ghost does not move for more than n turns it is eaten by a super ghost :)
2. The idea of Pacman was very fun but it would have been more useful if the programming project was more oriented to scientific computing. It could have been a game but where the control of the agent would be based on a sophisticated model instead of a state machine as is often the case in pacman. For instance driving a car or some other "low level" game. Nonetheless it was very interesting and fun.
3. Excellent project. We had fun and learned a lot, both about python programming itself, but particularly about working in teams.
4. Very fun, but I miss some support to start with very simple things.
5. Update to the core program should have been more publicly announced. Group 3 was taken by surprise to find it updated on the last day, hours before SVN lock.
6. The project was a great idea! It was fun and challenging. The team work experience was very important, probably one of the most important parts of the course.
7. It was the best part of the summer school -- the team programming experience was great. Even the fact that the interface of the game controller wasn't very polished was good: it made the whole thing more like a game in exploration and guessing under the pressure of time.
8. Idea was nice but a bit too ambitious in my opinion. Maybe a simpler programming task would have suited better.
9. I really liked the Bartosch PacMan agent. Also the Group 1 agent, which I expected to win after so much hype.
10. The pacman project was great fun! It would have helped to have some more information available online (e.g. about attributes of certain game objects `getWalls().height`). Although we had several days for the project I feel that we had to choose a compromise between "get the code working" and practicing what we have learned about good coding the days before; however, the time-pressure made us choose the most efficient mode and we could experience the benefits of team programming nicely.
11. blocking is might :-)
12. Sorry that I didnt rate the tutors independently, but it is hard to do as I was satisfied with all of them. The pacman game was fun for programming, but another project would have been better for applying what we have learned (sorry, cannot make any suggestions). But as there was a lot of input during the whole week, it was not that important that the game in my opinion was not 100% suitable. But it was good for teamwork and exchange.
13. I cant evaluate the individual people with respect to the above mentioned criteria for the programming project. That does not make sense.

14. I would have liked groups with less than 6 members - sometimes it was hard to make a point if somewhat reserved by nature :)
15. Pacman is a nice environment to test the acquired skills
16. Please note, that I intentionally put a 1 for almost every spot above. Even though programming the agent of the pacman project was not so interesting for me and my work but it definitely provided me other advantages, e.g.- it was a lot of fun, especially the tournament- I learned to read Python code and programming using objects- I have never programmed in a team before, and liked very much this experience- I'm even eager to beat the swiss killer agent some day :)
17. It was great!

The Summer School in general

Q: How do you overall evaluate the school?

[Grades are defined as above]

A: 1.5

Q: How do you evaluate the general level of the school? Was it too advanced/too basic with respect to your expectations?

[Grades from "Too Advanced"=1 to "Too Basic"=5]

A: 3.0

Q: How do you evaluate the general level of the school? Was it too advanced/too basic with respect to what was advertised in the announcement?

[Grades from "Too Advanced"=1 to "Too Basic"=5]

A: 3.0

Q: Did you learn more from attending the summer school than you would have learned from reading books and online tutorials alone?

Yes: 28

No: 1

Q: How do you evaluate social interactions and social activities at the school?

[Grades from "Very Good"=1 to "Very Bad"=5]

A: 1.8

Q: Would you recommend this course to other students and colleagues?

Yes: 28

No Answer: 1

Q: How did you hear about the summer school?

Google Search: 2

Professor/Tutor/Supervisor: 5

Colleague/Friend: 11

Website/Mailing list: 11

of which:

BCCN: 3

ML-news: 2

MDP-users: 2

comp-neuro, python-announce, FACETS, don't remember: 1

Q: Any further comments or suggestions?

1. do it the same way next year and it will be perfect :)
2. Thank you
3. Thank's a lot guys! I am looking forward for the next summer/herbst/... school you organize.
4. Great Job!
5. The school was awesome. Big thanks to everybody involved!
6. The throughput was great compared to other summer schools or workshops I attended ever. Thank you very much for organizing this "hands on lab" summer school. Now, we have "batteries included".
7. Everyone involved in planning and leading this course should be very proud.
8. I would have loved to hear even more about certain aspects of computing, e.g. parallel computing. I see that especially this topic quickly gets complicated and someone who has not worked on that field might quickly loose interest since he/she has no connection to what is being said. Maybe there could be some additional "advanced" lectures on some topics in the future (these might also be rather a discussion group rather than a presentation). Sorry for not having more creative ideas at the moment ;)Thanks again to all of you for this great summer school!

9. It was a very good summerschool and I am happy to have been there. This would not have been possible if I had to pay for it (as I dont have anybody to pay for me and I am a poor studen), so please keep on offering free courses!!!!!!!!!!!!!!!!!!!!All the tutors were very motivated and the topics were good for my level of experience. I was familiar with some things but also learned new stuff. Thankx to all of you!
10. You did a great job!
11. it was a very nice course, one comment:because its a practical course, it would be nice to have the lectures parts which concern the coding to be really more interactive, it does not make sense to speak about some python commands and methods on the implementation level (not speaking about the theory part) and not let the students try it out at the same time, until the excercises if one is unfamiliar with the terminology and keywords, one would already forget most of the specifics presented in the lecture
12. There is only one thing I would like to criticize:since it was only one week it is very hard to get to know all people. It would have been nice if there had been a kind of short introduction round where everybody tells the others his/her name and working project. Thus, it would have been easier to meet people from the same or an interesting field. The barbecue in the end was great in getting to know the others, I wished the barbecue or something similar had taken place earlier instead of going to a bar.
13. This was a great course - I gained lots of new ideas/knowledge from it, the talks were well above average and the amount of practical programming work was just right.