

My Experiences with Python

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Caveat—with apologies to ACC

Sufficiently long experience is indistinguishable from bias.

Career Profile

- programming professionally since 1984
- 84-89: COBOL–mainframes and minis
- 87-89: C, Clipper, Pascal
- 90-91: C++
- 95-...: Python
- Been training from 88, mostly freshers
- Structured classroom as well as informal training

How it started

- Thanks to the initiative of a data entry operator!
- She needed to change something and she did on her own!
- I started to look at Python as a language to teach PSPL

PSPL An introduction to programming; essentially solving problems in a language independent fashion. If the student can write conditions, loops and functions in a nice way...

Specific Experience

- 1997-1999: Focus Infotech
- 1998-2001: Arkin Systems
- 2002-2004: Virtusa
- 2004-2005: Ma Foi Academy
- 2005-2007: 5G
- 2007-2008: MinVesta
- 2008 plus: Primora, TalentSprint

Differences

- Inhouse training—people are already selected.
- Paid for training—mostly the second quintile.
- The state of the students is alarming: typically in 50+ students in every batch at TS, less than 5 have written more than 50 lines of code :-(
● in total in all the 4/5/6 years of their degree(s)

What do the students do?

- get into entry level jobs
- Mostly Java/JSP code
- some .NET

How do I use?

- first 3 weeks of a 12 week program
- a series of graduated problems—thanks to Arkin's students
- ends in mid sized coding assignment.
 - parsing a pgn file and determining final position

So what is my experience?

What works

The absence of ceremony and boilerplate is a great plus.

What does not

- Many students find command line difficult
- After IDLE, iPython ... I have veered towards using scite.
- Some students find the significant white space difficult to debug!

What do the students think?

- Most wonder "Why python?"
- Some enjoy it and crib a little when coding in Java :-)
- Many are neutral
- After a few years, whoever contacts me talks about PSPL
- The better students really appreciate the 'pragmatic paradigm'

My take

- I find Python very effective **for my needs**
- Most important win is psychological: "I learnt a new language in a few days and wrote more lines of code in three weeks than in all the years in college"
- They learn to learn
- My style: Mostly explain a problem, point to docs and ask them to write the code.
- Then review their code, write code before them . . .

Odds and ends

- I generally do not discuss OO in Python
- But I do show the ideas of FP
- I tried Python 3, two batches back. Reverted to 2.6 for the later batches.
- I also tried Python and Ruby at 5G.

Thanks to...

Prof Subramanian who made me
teach my own class in BSc and
changed my life.

Questions