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Mahdi Haghverdi
Back-end / Junior Developer

Persian articles on *virgool*
English articles on *medium*
github.com/mahdihaghverdi

4-year Python developer spent time in learning Python deep and well. Interested in PEPs and How things work in CPython. Regular writer. Committed in learning continuously and staying up-to-date with latest technologies.

SKILLS

Tools and Languages

Python	FastAPI	PostgreSQL	SQLAlchemy	Docker	LaTeX
Git & GitHub Actions	Unit-Test	PyTest	Poetry	RESTful	Agile

PROJECTS

FastBlog — link
- A simple RESTfull blog API, with the CRUD on blog posts and support a high performance comment management system written in Python with FastAPI and PostgreSQL.

postfixcalc — link
- A library which provides the API to get an arithmatic expression as `str` and parse and evaluate that *safely* using postfix method.

plumacalc — link
- A django app which uses postfixcalc to create a web based, self hosted calculator.

listappend — link
- Python implementation of `PyListObject` and its `append` mechanism for the article:
  - How Append Works (Persian)
  - How Append Works (English)

timetp — link
- A tokenizer and a parser written based on a DFA
- For full explanation read the article of this project at Let's write a tokenizer and a parser

OPEN SOURCE CONTRIBUTION

Aggify — link   *Aggify is a Python library to generate MongoDB aggregation pipelines.*
- Submit 9 pull requests which got merged into the main branch — link
- Implement one pipeline stage: `$out` — Pull Request #13
- Make the test coverage of Aggify 100% — Pull Request #42
- Fixed issues: #16 and #18
- Aggify's test CI/CD in GitHub Actions now runs Python 3.8, 3.9, 3.10, 3.11 and 3.12 — Pull Request #43

ARTICLES

Timsort Algorithm Explained — link
- Full coverage and explanation for `timsort` algorithm.

Let's Write a Tokenozer and Parser — link
- A comprehensice walk through of studing the theory of automata, writing a RegEx, drawing a DFA and implementing a tokenizer and a parser out of them.

What's New in Python 3.12 — link
- Point to point, PEP to PEP and issue to issue of *What's new* in Python 3.12 stable release.

Deep Dive Into Object and Types in the C Layer of CPython
- How objects and types are implemented in CPython?
- written in Persian & English

How list.append Works In CPython's C Layer?
- How does CPython do an `list.append` exactly?
- written in Persian & English

Python is TOO Fast — link
- Is Python fast or slow? Let's have a discussion.

Python asyncio And TaskGroups — link
- Python `asyncio` module has a new type (from 3.11) called `TaskGroup`. Let's see why it was important to have it in stdlib.

Python Standard Library vs. PyPI — link
- How Python stdlib differs from PyPI?

Python, A Language For Companies Seeking High Performance — link
- Should the High-tech companies and startups use Python for their product or not?

CPython Will Be 5x Times Faster — link
- How faster CPython team will improve the performance of Python?

More in here: https://virgool.io/@liewpl/