neorpc-python-rpc Documentation

Release 0.2.2

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Feb 18, 2019

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neo-python-rpc

A Python RPC Client for the NEO Blockchain

- Free software: MIT license
- Documentation: https://neo-python-rpc.readthedocs.io.

1.1 Features

A lightweight RPC Client for the NEO Blockchain

Installation

2.1 Stable release

To install neo-python-rpc, run this command in your terminal:

```
$ pip install neo-python-rpc
```

This is the preferred method to install neo-python-rpc, as it will always install the most recent stable release.

If you don't have pip installed, this Python installation guide can guide you through the process.

2.2 From sources

The sources for neo-python-rpc can be downloaded from the Github repo.

You can either clone the public repository:

```
$ git clone git://github.com/CityOfZion/neo-python-rpc
```

Or download the tarball:

```
$ curl  -OL https://github.com/CityOfZion/neo-python-rpc/tarball/master
```

Once you have a copy of the source, you can install it with:

```
$ python setup.py install
```

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Usage

To use neo-python-rpc in a project:

```
>>> from neorpc.Client import RPCClient
>>> client = RPCClient()
>>> blockchain_height = client.get_height()
>>> blockchain_height
769332
```

Get a block

```
>>> block = client.get_block(123456)
>>> block
{
    "nextconsensus": "AdyQbbn6ENjqWDa5JNYMwN3ikNcA4JeZdk",
    "size": 686,
    "previousblockhash":
↪"0xdbee7804eb1f648e640401a864ed29bbc787d7f9d36b6f4be0a3ffd693723d5e",
    "script": {
        "invocation":
↪"4012bbee0bac21b6ec5c4b0cda3aa28f3aa51e3b4a6c230908370adc8758fc3b051a865539bdca0cc6b450ff4fa18d3295
e2b0c3d1239d41ac05a92ec430ab0e0388f5e76e30062dd9aecca3007993e8bde7a00b70cdbef2fbb641164b9fba5f6ed724c
f2e42c94c2a61f8e0b3fb2ec8cc6e9ef2e0670056082370e9331e0f40f0a005fbb338e69465c6e0760ac04c2d61bdbec99221
530842403cc25ba0ce9ca460d3bf6108a48c676f131076c1542173278cace43a69b7038d4f2f5b401e8bdea2e10c9c68598d9
↪",
        "verification":
↪"55210209e7fd41dfb5c2f8dc72eb30358ac100ea8c72da18847befe06eade68cebfcb9210327da12b5c40200e9f655694
cf22cd5ed2da17a6df4dd8358fcb2bfb1a43208ad0feaab2746b21026ce35b29147ad09e4afe4ec4a7319095f08198fa8babk
dc542557921039dafd8571a641058ccc832c5e2111ea39b09c0bde36050914384f7a48bce9bf92102d02b1873a0863cd042cc
↪"
    },
    "tx": [
        {
            "vin": [],
            "size": 10,
```

```
            "type": "MinerTransaction",
            "txid":
→"0x0981c5e57997af0ce18d032bc9969220308dce8ec643844398649b6732ad91fe",
            "attributes": [],
            "net_fee": "0",
            "vout": [],
            "nonce": 1808064137,
            "version": 0,
            "scripts": [],
            "sys_fee": "0"
        }
    ],
    "nextblockhash":
→"0xed2cf18a0b15bb3b6a244abd2de1227afde61d1b0a9cbc582e587c18b3c3a00e",
    "confirmations": 647426,
    "merkleroot": "0x0981c5e57997af0ce18d032bc9969220308dce8ec643844398649b6732ad91fe
→",
    "hash": "0x10d1473c9fa133b28ea4f470e58b97bfe1222e102b14fbc50d3ade59eb8e3b74",
    "version": 0,
    "time": 1496944720,
    "nonce": "c8f9672b6bc4de89",
    "index": 123456
}
```

Contributing

Contributions are welcome, and they are greatly appreciated! Every little bit helps, and credit will always be given.

You can contribute in many ways:

4.1 Types of Contributions

4.1.1 Report Bugs

Report bugs at https://github.com/CityOfZion/neo-python-rpc/issues.

If you are reporting a bug, please include:

- Your operating system name and version.
- Any details about your local setup that might be helpful in troubleshooting.
- Detailed steps to reproduce the bug.

4.1.2 Fix Bugs

Look through the GitHub issues for bugs. Anything tagged with "bug" and "help wanted" is open to whoever wants to implement it.

4.1.3 Implement Features

Look through the GitHub issues for features. Anything tagged with "enhancement" and "help wanted" is open to whoever wants to implement it.

4.1.4 Write Documentation

neo-python-rpc could always use more documentation, whether as part of the official neo-python-rpc docs, in doc-strings, or even on the web in blog posts, articles, and such.

4.1.5 Submit Feedback

The best way to send feedback is to file an issue at https://github.com/CityOfZion/neo-python-rpc/issues.

If you are proposing a feature:

- Explain in detail how it would work.

- Keep the scope as narrow as possible, to make it easier to implement.

- Remember that this is a volunteer-driven project, and that contributions are welcome :)

4.2 Get Started!

Ready to contribute? Here's how to set up *neo-python-rpc* for local development.

1. Fork the *neo-python-rpc* repo on GitHub.

2. Clone your fork locally:

```
$ git clone git@github.com:your_name_here/neo-python-rpc.git
```

3. Install your local copy into a virtualenv. Assuming you have virtualenvwrapper installed, this is how you set up your fork for local development:

```
$ mkvirtualenv neo-python-rpc
$ cd neo-python-rpc/
$ python setup.py develop
```

4. Create a branch for local development:

```
$ git checkout -b name-of-your-bugfix-or-feature
```

Now you can make your changes locally.

5. When you're done making changes, check that your changes pass flake8 and the tests, including testing other Python versions with tox:

```
$ flake8 neo-python-rpc tests
$ python setup.py test or py.test
$ tox
```

To get flake8 and tox, just pip install them into your virtualenv.

6. Commit your changes and push your branch to GitHub:

```
$ git add .
$ git commit -m "Your detailed description of your changes."
$ git push origin name-of-your-bugfix-or-feature
```

7. Submit a pull request through the GitHub website.

4.3 Pull Request Guidelines

Before you submit a pull request, check that it meets these guidelines:

1. The pull request should include tests.

2. If the pull request adds functionality, the docs should be updated. Put your new functionality into a function with a docstring, and add the feature to the list in README.rst.

3. The pull request should work for Python 2.6, 2.7, 3.3, 3.4 and 3.5, and for PyPy. Check https://travis-ci.org/CityOfZion/neo-python-rpc/pull_requests and make sure that the tests pass for all supported Python versions.

4.4 Tips

To run a subset of tests:

```
$ python -m unittest tests.test_client.py
```

CHAPTER 5

Credits

5.1 Development Lead

- Thomas Saunders <tom@cityofzion.io>

5.2 Contributors

None yet. Why not be the first?

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