

SageMathCloud

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November 10, 2015

GSoC student: Jon Lee

SageMathCloud

Projects

Deleted Hidden

omni

#480-ent-2014 #480b #ant #bigram #com #delete #demo #dev #devel #dictwvns #edu
 #finance #goe #grant #grants #haikal #mrm #kindle #linear-algebra #imfdb #math #math480
 #mathday #me #mrc #omnibase #org #paper #research #rh #sage #sagedays #scratch
 #sd58 #shimura_degrees #smc #spring480 #star #support #teach #test #thesis #tish #todo

+ New Project...

Showing projects

Only showing projects whose title, description or users contain omni

SMC devel - Omnibase - Fall 2015	4 minutes ago	#dev #omnibase	William A. Stein (38 minutes ago), Harald Schilly (17 hours ago), John Jeng (1 day ago), Jonathan Lee (2 days ago), Andy Huchala (2 days ago), Harald Schilly (3 days)	Running
Omnikorn is not a protein	4 days ago	#omnibase #smc 2015 SageMathCloud Development	Hal Snyder (4 weeks ago), William A. Stein (3 months ago), Andy Huchala, Jonathan Lee, R. Andrew Ohana, Nicholas Ruhland, Harald Schilly, Harald Schilly,	Running
omnibase-william	1 month ago	No description	Andy Huchala (1 month ago), Jonathan Lee, Harald Schilly, Harald Schilly, Harald Schilly, Harald Schilly	Running

<https://cloud.sagemath.com/projects/4a5f0542-5873-4eed-a85c-a18c706e8bcd/files/>

Projects sd70 admin mo... William St... smc-busin... SMC deve... Support a... William A. Stein Help 43ms

Files New Log Find Settings

Filename

Check all

451 items

1/4

Public

New

- Sage Worksheet (.sagews)
- >_ Terminal (.term)
- Jupyter Notebook (.ipynb)
- LaTeX (.tex)
- Markdown (.md)
- Task List (.tasks)
- Course (.course)
- Sage Code (.sage)
- Python (.py)
- Folder

Terminal command...

<input type="checkbox"/>	>_		2 days ago	
<input type="checkbox"/>	>_		2 days ago	49.6 KB
<input type="checkbox"/>	>_		2 days ago	8.6 KB
<input type="checkbox"/>	>_		2 days ago	36 bytes
<input type="checkbox"/>	>_		3 days ago	
<input type="checkbox"/>	>_		4 weeks ago	
<input type="checkbox"/>	>_		4 weeks ago	935 bytes
<input type="checkbox"/>	>_		1 month ago	
<input type="checkbox"/>	>_	2014-11-24-104831.term	1 month ago	36 bytes
<input type="checkbox"/>	>_	upgrade	1 month ago	
<input type="checkbox"/>	>_	cloud-examples	1 month ago	
<input type="checkbox"/>	>_	bin	2 months ago	
<input type="checkbox"/>	>_	2015-02-16-045159.ipynb	3 months ago	2.2 KB
<input type="checkbox"/>	>_	other.synctex.gz	3 months ago	444 bytes
<input type="checkbox"/>	>_	other.pdf	3 months ago	10.8 KB
<input type="checkbox"/>	>_	other.log	3 months ago	2.3 KB
<input type="checkbox"/>	>_	other.aux	3 months ago	8 bytes
<input type="checkbox"/>	>_	a.pdf	6 months ago	940.7 KB
<input type="checkbox"/>	>_	img.png	6 months ago	166.3 KB

Browser address bar: <https://cloud.sagemath.com/projects/4a5f0542-5873-4eed-a85c-a18c706e8bcd/files/support/2015-09-26-185314-numba-py3.ipynb>

Browser tabs: Projects sd70, admin mo..., William St..., smc-busin..., SMC deve..., Support an..., William A. Stein, Help, 43ms

Browser menu: Files, New, Log, Find, Settings, 2015-11-05-145908-topcom.sa, 2015-09-26-185314-numba-py

Jupyter 2015-09-26

File Edit View Insert

Warning: Any changes you make to revisions displayed below will be discarded.

Revision 2 at 9/26/2015, 6:53:35 PM [Revert...](#) [Close](#)

```
In [1]: from numba import jit
from numpy import arange

# jit decorator tells Numba to compile this function.
# The argument types will be inferred by Numba when function is called.
@jit
def sum2d(arr):
    M, N = arr.shape
    result = 0.0
    for i in range(M):
        for j in range(N):
            result += arr[i,j]
    return result

a = arange(9).reshape(3,3)
print(sum2d(a))

36.0
```

In []:

← → ↻ 🏠 <https://cloud.sagemath.com/projects/4a5f0542-5873-4eed-a85c-a18c706e8bcd/files/tmp/2015-08-20-105547.tex> ☆ 🔒 ☰

🌐 Projects 📄 sd70 * 📄 admin mo... * 📄 William St... * 📄 smc-busin... * 📄 SMC deve... * 📄 Support a... * ⚙️ William A. Stein 🆘 Help 🔔 43ms 📶

📁 Files ➕ New 🔄 Log 🔍 Find ⚙️ Settings 📄 2015-11-05-145908-topcom.sa* 📄 2015-09-26-185314-numba-py* 📄 2015-08-20-105547.tex

🏠 ↶ ↷ 📄 ⌨️ 📄 🔍 ⚖️ 📄 ⏪ ⏩ ⚡ 📄 Save 🔄 History ⏪ ⏩ ⏪ ⏩ 📄 Preview 📄 Issues 👁️ PDF 🏗️ Build 🔍 🔍 📄 📄 📄 📄 📄 📄 📄

```
1 \documentclass{article}
2 \title{SageTeX GSoC Demo}
3 \author{William Stein}
4 \usepackage{sagetex}
5
6 \begin{document}
7 \maketitle
8
9 \LARGE
10 Next year is  $2016 = \text{sage}\{\text{factor}(2016)\}$ .
11
12 \end{document}
13
14
15 %sagemathcloud={"lang":"disabled",
16 "latex_command":"pdflatex -synctex=1 -
17 interact=nonstopmode '2015-08-20-
18 105547.tex'"}

```

SageTeX GSoC Demo

William Stein

November 7, 2015

Next year is $2016 = 2^5 \cdot 3^2 \cdot 7$.

<https://cloud.sagemath.com/projects/4a5f0542-5873-4eed-a85c-a18c706e8bcd/files/support/2015-11-05-145908-topcom.sagews>

Projects sd70 admin mo... William St... smc-busin... SMC deve... Support a... William A. Stein Help 43ms

Files New Log Find Settings 2015-11-05-145908-topcom.sa 2015-09-26-185314-numba-py

Run Stop Restart Tab <> Save History

Modes Help # Data Control Program Plots Calculus Linear Graphs Number Theory Rings %sage

```

5 # The optional TOPCOM package is pre-installed in Sage
6
7
8 PointConfiguration.set_engine('topcom') # optional -
9 p = PointConfiguration([[-1,-5/9],[0,10/9],[1,-5/9],[
10 regular = p.restrict_to_regular_triangulations(True).t
11 nonregular = p.restrict_to_regular_triangulations(False)
12 len(regular) # optional - topcom
13
14 16
15
16 len(nonregular) # optional - topcom
17
18 2
19
20 nonregular[0].plot(aspect_ratio=1, axes=False) # opt
21 PointConfiguration.set_engine('internal') # to make
  
```

2D Plotting
 Function
 Line
 Parametric
 Points
 Polygon
 Random Walk
 Text
 3D Plotting
 Cube
 Function
 Icosahedron
 Implicit Plot
 Parametric Curve
 Parametric Surface

The End