



Creating a testing workbench for Computer Vision projects using Python

Darshita Chaturvedi

Co-Founder & CEO, Atri Labs

Women Who Code Python

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About Me



Maintainer of Atri engine, and Co-Founder & CEO of Atri Labs

Full-stack web development framework to build Progressive Web Apps



Previously, Graduate Research Assistant at MIT and Quant Researcher at BlackRock

Experiences in academia and quantitative finance industry



Editor of novels written by my grandfather over the last 50 years

Favorite past times: painting and learning art history

OpenCV is great but...

Motivation (1/2)

Cross-platform testing

Media type, Input devices, Operating System, Package Distribution System, etc.

"I am using mouse cursor to interact with an OpenCV window. When using a USB mouse, these events are fired as expected. When using the built-in trackpad, these events are intermittently fired at a much lower frequency."

<https://github.com/opencv/opencv/issues/21143>

"The named window that I create and am using to display images eventually stops updating. No errors are thrown but the window becomes unresponsive. I have tried increasing the time inside waitKey, but it has no noticeable effect."

<https://github.com/opencv/opencv/issues/18100>

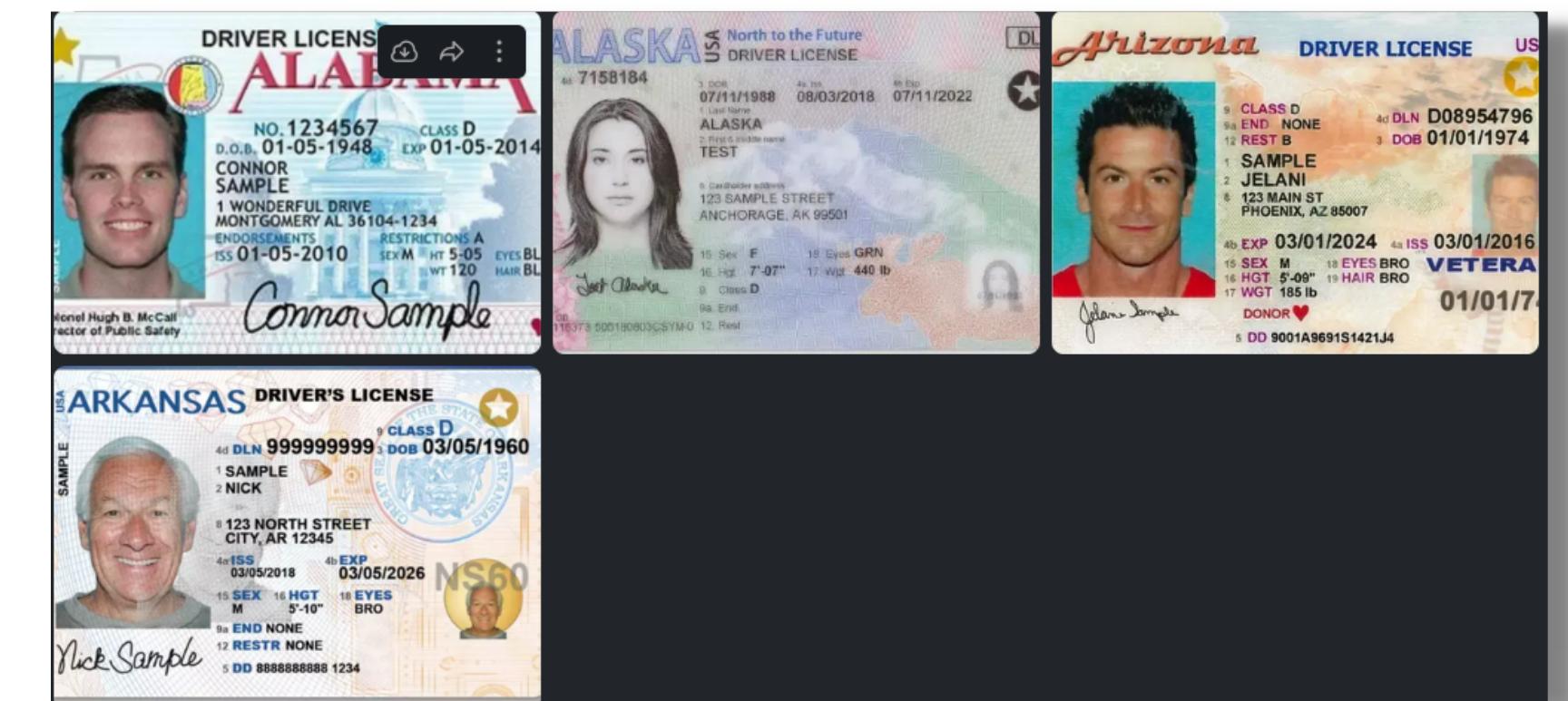
"Pressing the ' key in cv::waitKey causes crash across languages and CV versions. I am sure there are a bunch of other examples in other languages, or with other keyboards that I don't know of."

<https://github.com/opencv/opencv/issues/21401>

Motivation (2/2)

Collecting feedback from stakeholders

"Snapshot jungle" and lack of version control



Demo - App user

“

Browsers have won the
OS wars

Peter Wang

CEO & Co-Founder of Anaconda

Atri Framework

Full-stack web development framework

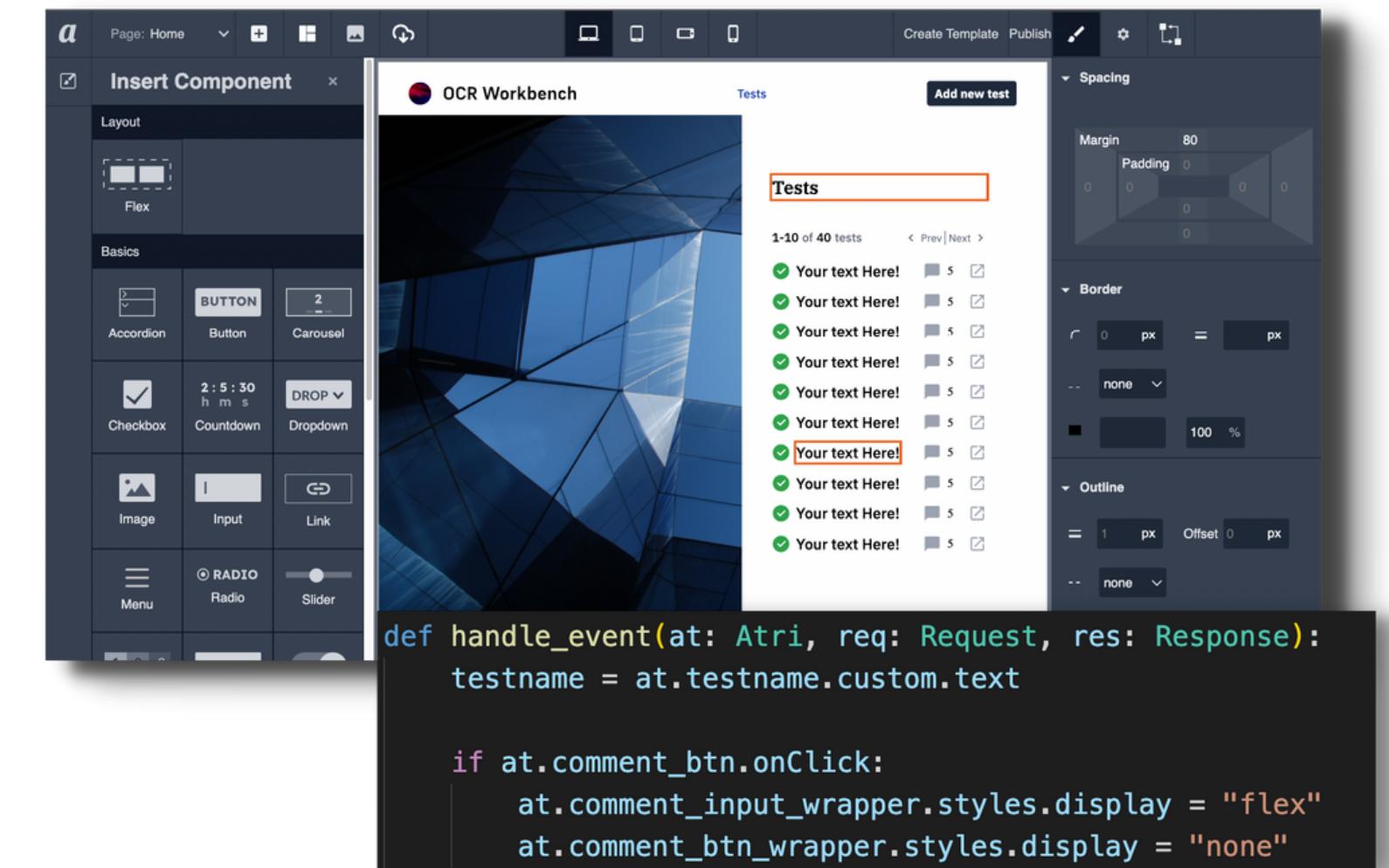
Create frontend visually and write backend in Python;
request-response model is provided by default.

Free and open-source

Clone existing apps or create one from scratch

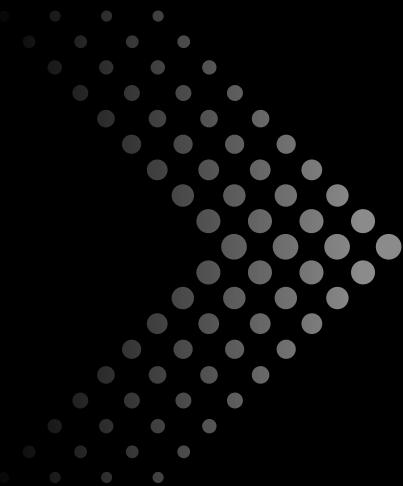
General purpose

Ecommerce websites to Machine Learning internal apps



Key Takeaways

- Move from imshow windows to a testing workbench
- Build tech stack in Python
- I'm a web developer now!



What Next?

- 1 Install and get started

```
pipenv install atri
```

- 2 Showcase your Atri App

Share any bugs or ask questions in Discussions

- 3 Contribute Python utility functions

E.g. removing background from an image using Python

Support us by giving
Atri framework
a star in GitHub!



Atri-Labs/atrilabs-engine

Resources

-  **Atri framework** <https://github.com/Atri-Labs/atrilabs-engine>
-  **Testing workbench** https://github.com/Atri-Apps/cv_workbench
-  **All Atri Apps** <https://github.com/Atri-Apps>
-  **Atri utilities** https://github.com/Atri-Labs/atri_utils
-  **Documentation** <https://docs.atrilabs.com>

Thank you
for listening!

 Darshita Chaturvedi

 @darshitac_

