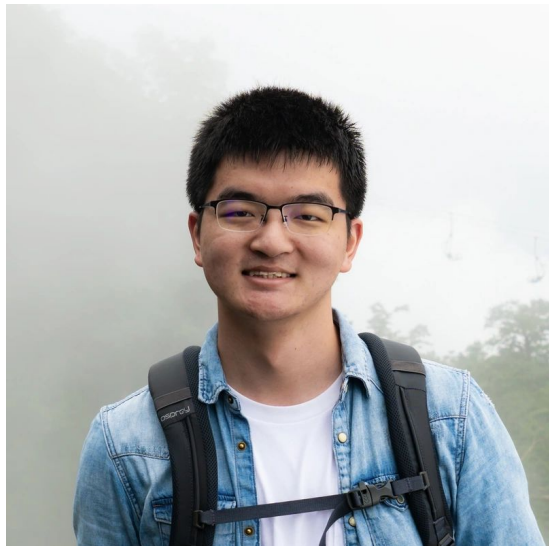# WORKSHOP SERIES :

ENGINEERING YOUR WEBSITE

Speaker: Shijie Chen

April 2nd, Tuesday
(5:30-6:30 pm)
Dreese Lab 260

Subscribe:

1

About me

- PhD student in CSE, advised by Prof. Yu Su and Prof. Huan Sun.

- Team leader for the TacoBot team that won the 3rd place in the first Alexa Prize TaskBot challenge.

- Doing research on NLP, especially on conversation systems, semantic parsing, language modeling, and AI agents.

Researchers are content creators

The internet and social media has changed how research work is broadcasted.

- YouTubers => Videos => Likes and Subs
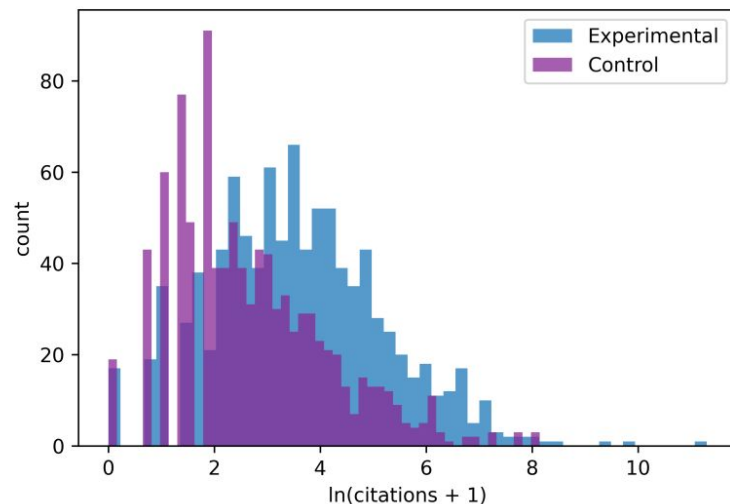- Researchers => Papers => Citations

Online presence has become important for AI researchers!

- Papers
- Website & Demos
- Open-source Code Release
- Social media (LinkedIn posts, Twitter posts, WeChat Moments, …)
- …

Researchers are content creators
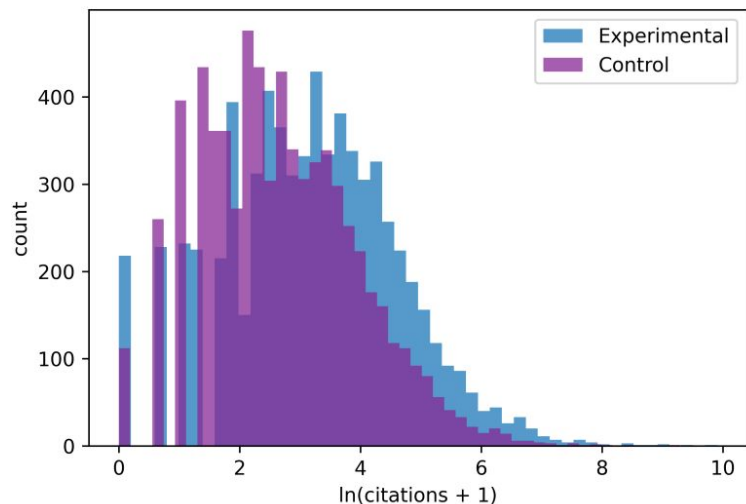
(a) @_akhaliq Dataset Histogram

(b) @arankomatsuzaki Dataset Histogram

Paper shared by influencers => More citations!

Weissburg, Iain Xie, Mehir Arora, Liangming Pan, and William Yang Wang. "Tweets to Citations: Unveiling the Impact of Social Media Influencers on AI Research Visibility." *arXiv preprint arXiv:2401.13782* (2024).

A website for your research

Example: Mind2Web from OSUNLP

Paper

MIND2WEB: Towards a Generalist Agent for the Web

Xiang Deng*   Yu Gu   Boyuan Zheng   Shijie Chen
Samuel Stevens   Boshi Wang   Huan Sun*   Yu Su*
The Ohio State University
https://osu-nlp-group.github.io/Mind2Web
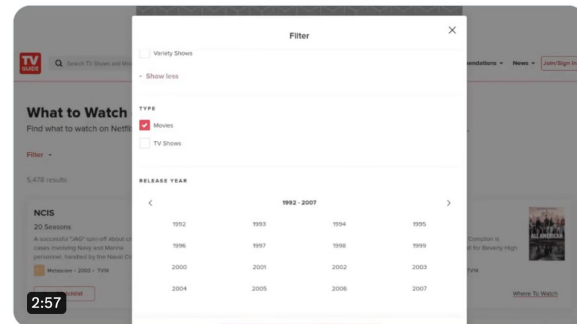
Twitter

AK ✔ @_akhaliq · Jun 11, 2023
Mind2Web: Towards a Generalist Agent for the Web

paper page: huggingface.co/papers/2306.06...

introduce **Mind2Web**, the first dataset for developing and evaluating generalist agents for the web that can follow language instructions to complete complex tasks on any website. Existing...
Show more

💬 14   🔁 118   ♡ 491   ᴵᴵ¹ 154K

Deng, Xiang, Yu Gu, Boyuan Zheng, Shijie Chen, Sam Stevens, Boshi Wang, Huan Sun, and Yu Su. "Mind2web: Towards a generalist agent for the web." *Advances in Neural Information Processing Systems* 36 (2024).

A website for your research

Example: Mind2Web from OSUNLP
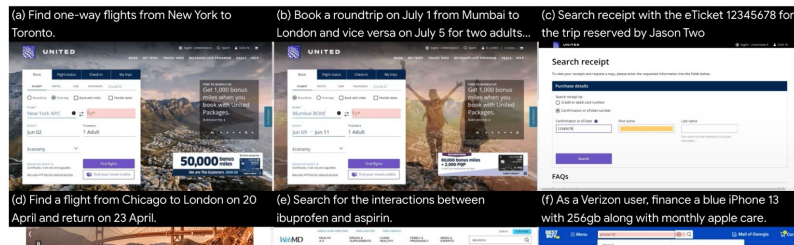
Project Website

Building an academic website made easy
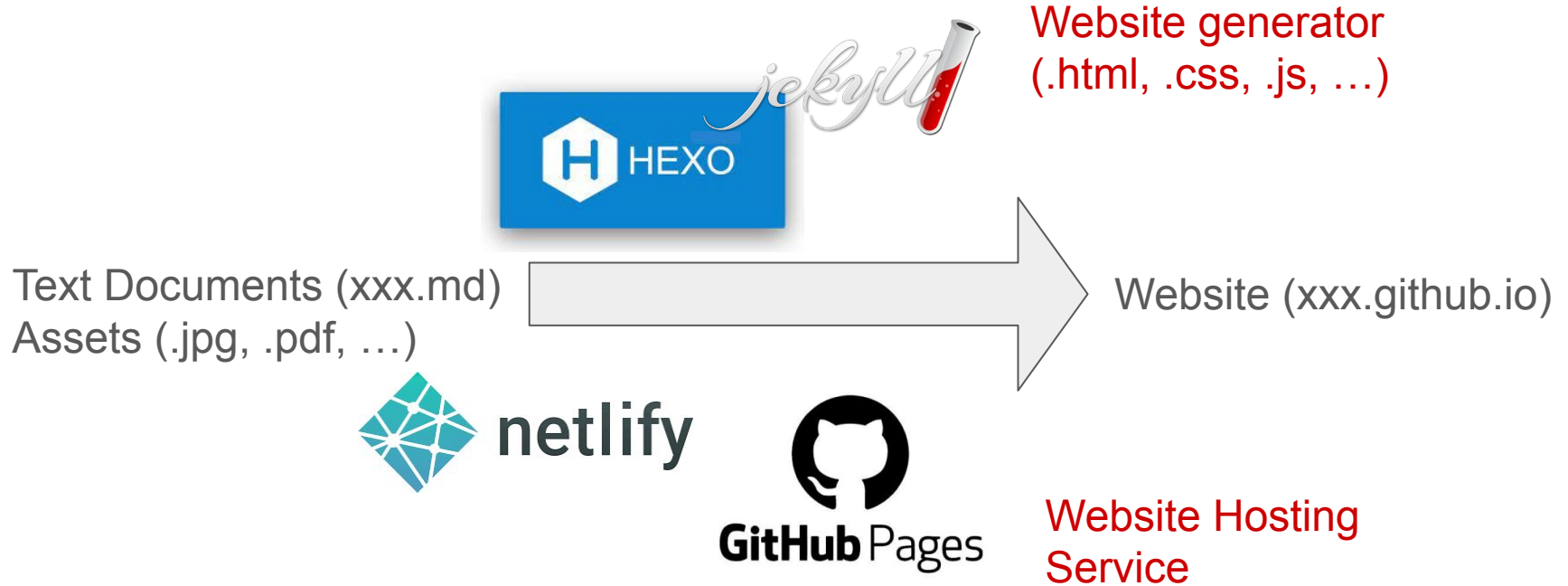
Websites are useful for

- Personal Homepage
- Research Lab Homepage
- Research Project
- Conferences and Workshops
- Courses
- …

Building an academic website made easy

Thanks to the open-source community, we don't need to CODE our websites!

Website generator (.html, .css, .js, …)

Text Documents (xxx.md)
Assets (.jpg, .pdf, …)

Website (xxx.github.io)

Website Hosting Service

Getting Started

GitHub is a developer platform that allows developers to create, store, manage and share their code.

- Our website will be a code repository on GitHub
- As with any code repository, we'll have version control over our website
- A free public domain <username>.github.io will be available.
  - This will be the domain for our website
- Get your free account at https://github.com/

Getting Started

In this workshop, we use Jekyll + Github Pages. i.e. Repository to website.

- Free to use.
- Jekyll is deeply integrated with GitHub Pages.
- Automated deployment upon code changes.

We can use website templates as our starting points.

Some popular ones: Academics and Al-Folio

Getting Started

Setting up the website repository on GitHub

[Link to documentation](#)

1. Choose a template repository, click 'Use Template'
2. Set repository name & Permissions
   a. For homepage: Use <your-github-username>.github.io
   b. For other pages: Use any name. The website will be deployed to <your-github-username>.github.io/<repo_name>
   c. Grant `read and write permissions` to GitHub Actions
3. Modify _config.yml
   a. Set **url** to <your-github-username>.github.io
   b. Set baseurl to <empty> for homepage, <repo_name> for other websites
4. Wait for the first build, this will create a `gh_pages` branch in your repo.

Starting point

This is what the template look like

You R. Name

Affiliations. Address. Contacts. Moto. Etc.

This is a test project website.

Write your biography here. Tell the world about yourself. Link to your favorite subreddit. You can put a picture in, too. The code is already in, just name your picture `prof_pic.jpg` and put it in the `img/` folder.

Put your address / P.O. box / other info right below your picture. You can also disable any of these elements by editing `profile` property of the YAML header of your `_pages/about.md`. Edit `_bibliography/papers.bib` and Jekyll will render your publications page automatically.

Link to your social media connections, too. This theme is set up to use Font Awesome icons and Academicons, like the ones below. Add your Facebook, Twitter, LinkedIn, Google Scholar, or just disable all of them.
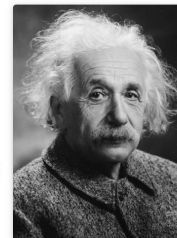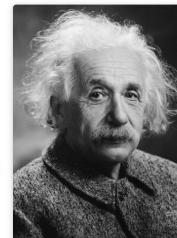
```
555 your office number
123 your address street
Your City, State 12345
```

news

Jan 15, 2016	A simple inline announcement with Markdown emoji! ✨ 😀
Nov 07, 2015	A long announcement with details
Oct 22, 2015	A simple inline announcement.

latest posts

Jan 27, 2024	a post with code diff
Jan 27, 2024	a post with advanced image components
Jan 27, 2024	a post with vega lite

selected publications

PhysRev   Can Quantum-Mechanical Description of Physical Reality Be Considered Complete?
A. Einstein, B. Podolsky, and N. Rosen
Phys. Rev., May 1935
[ABS] [HTML] [PDF]
Altmetric 826   Citations 12k   scholar 24K

You can even add a little note about which of these is the best way to reach you.

Starting point

This is what the template look like

Let's make a website for Brutus!

Customizing Website

Al-Folio File Structure - What are the files we need to care about?

Assets: Images, files, etc

Metadata and writings

```
∨ _bibliography
  ≡ papers.bib
∨ _data
  ! coauthors.yml
  ! cv.yml
  ! repositories.yml
  ! venues.yml
```

```
∨ _news
  ⬇ announcement_1.md
  ⬇ announcement_2.md
  ⬇ announcement_3.md
∨ _pages
  ⬇ 404.md
  ⬇ about_einstein.md
  ⬇ about.md
```

```
∨ _posts
  ⬇ 2015-03-15-formatting-and-links.md
  ⬇ 2015-05-15-images.md
  ⬇ 2015-07-15-code.md
```

```
∨ _projects
  ⬇ 1_project.md
  ⬇ 2_project.md
  ⬇ 3_project.md
```

```
∨ assets
  > audio
  > bibliography
  > css
  > fonts
  > html
  > img
  > js
  > json
  > jupyter
  > pdf
  > plotly
  > video
  > webfonts
```

Configuration of the website!

```
! _config.yml
```

Customizing Website

Use _config.yml to configure the website.

- Personal information
  - First name, middle name, and last name, address, …
  - Social media and academic profile IDs
- Website information
  - Title of the website
  - Url and baseurl
- Website content
  - What pages to show?
  - What resume entries to show?

Customizing Website

Homepage - _pages/about.md

- Frontmatter
  - Set subtitle
  - Set profile image
  - Choose whether to show news, selected papers, socal media
- Edit content of the homepage in Markdown text.

Customizing Website

Homepage

about.md

```
6    first_name: Brutus
7    middle_name:
8    last_name: Buckeye
9    email: you@example.com
```

```
_pages > about.md
        ...
1    ---
2    layout: about
3    title: about
4    permalink: /
5    subtitle: Subtitle goes here
6
7    profile:
8      align: right
9      image: prof_pic.jpg
10     image_circular: false # crops the image to make it circular
11     more_info: >
12       <p>Ohio State University</p>
13
14   news: true # includes a list of news items
15   selected_papers: true # includes a list of papers marked as "selected={true}"
16   social: true # includes social icons at the bottom of the page
17   ---
18
19   Brutus Buckeye is the athletics mascot of Ohio State University. Brutus made his debut in 1965, with
     periodic updates to design and wardrobe occurring in the years since. As a member of the spirit squad,
     Brutus Buckeye travels to many events around the university and often makes appearances around Columbus.
```

Brutus Buckeye

Subtitle goes here

Brutus Buckeye is the athletics mascot of Ohio State University. Brutus made his debut in 1965, with periodic updates to design and wardrobe occurring in the years since. As a member of the spirit squad, Brutus Buckeye travels to many events around the university and often makes appearances around Columbus.

Ohio State University

Customizing Website

CV - _pages/cv.md

- Frontmatter
  - Set path to the .pdf file (relative to assets/pdf/)
- _config.yml/jsonresume
  - Choose what fields to display
- assets/json/resume.json
  - Edit the content of your resume

Customizing Website

CV - _pages/cv.md

_config.yml

cv.md

```
_pages >  cv.md
            You, 2 days ago | 1 author (You)
    1       ---         You, 2 days ago • Initial commit
    2       layout: cv
    3       permalink: /cv/
    4       title: cv
    5       nav: true
    6       nav_order: 5
    7       cv_pdf: example_pdf.pdf
    8       description: This is a description of the page. You can modify it
            in '_pages/cv.md'. You can also change or remove the top pdf
            download button.
    9       toc:
   10         sidebar: left
   11       ---
```

```
466     jekyll_get_json:
467       - data: resume
468         json: assets/json/resume.json # it can also be an url
469     jsonresume:
470       - basics
471       - work
472       - education
473       - publications
474       # - projects
475       # - volunteer
476       - awards
477       # - certificates
478       - skills
479       - languages
480       # - interests
481       - references
```

Basics

Work

Education

Awards

Publications

Skills

Languages

References

CV

This is a description of the page. You can modify it in '_pages/cv.md'. You can also change or remove the top pdf download button.

Basics

Name   Brutus Buckeye

Customizing Website

Publication

- publications.md
  - Frontmatter
    - Specify the years of the papers to display
    - Specify how the papers are displayed
- **_bibliography/papers.bib**
  - Edit your publication information as bib entries
  - For each entry:
    - selected={true} for it to appear in the "selected publications" part of the homepage.
    - preview={xxx.gif} for it to have a preview gif.

Customizing Website

Publication

```
@article{PhysRev.47.777,
  abbr={PhysRev},
  title={Can Quantum-Mechanical Description of Physical Reality Be
  Considered Complete?},
  author={Einstein, A. and Podolsky, B. and Rosen, N.},
  journal={Phys. Rev.},
  volume={47},
  issue={10},
  pages={777--780},
  numpages={0},
  year={1935},
  month={May},
  publisher=aps,
  doi={10.1103/PhysRev.47.777},
  url={http://link.aps.org/doi/10.1103/PhysRev.47.777},
  html={https://journals.aps.org/pr/abstract/10.1103/PhysRev.47.777},
  pdf={example_pdf.pdf},
  altmetric={248277},
  dimensions={true},
  google_scholar_id={qyhmnyLat1gC},
  selected={true}
}
```

On the homepage

selected publications

PhysRev

Can Quantum-Mechanical Description of Physical Reality Be
Considered Complete?
A. Einstein, B. Podolsky, and N. Rosen
Phys. Rev., May 1935

[ABS] [HTML] [PDF]

Altmetric 826   Citations 12k   scholar 24K
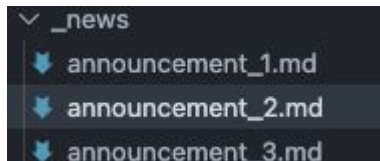
Customizing Website

News/Blogs/Projects

- _config.yml - Choose whether to show on homepage
- _news/, _posts/, _projects/
  - Simply add corresponding xxx.md files
  - Optionally, you can add tags to your blog posts in the frontmatter

Customizing Website

Adding and deleting pages

Add/delete new pages by adding/deleting <title>.md to _pages/.

Choose whether to show pages on navigation bar and its order by `nav` and `nav_order` in the frontmatter

```
1  ---
2  layout: default
3  permalink: /blog/
4  title: blog
5  nav: true
6  nav_order: 1
```

You R. Name   about blog publications projects repositories cv teaching people submenus ▾ ☼

Deploying Websites

Test your website locally (optional):

On your terminal, run `bundle exec jekyll serve`

On your browser, visit `localhost:4000`

Deploy to GitHub pages

- Simply push your code to GitHub.
- Your website will be deployed within minutes.

For the future

Can we make building websites even simpler?

AI Agents may help!

- [Devin](#) from Cognition

March 12th, 2024 | Written by Scott Wu

Introducing Devin, the first AI software engineer

And setting a new state of the art on the SWE-bench coding benchmark

Meet Devin, the world's first fully autonomous AI software engineer.

For the future

Can we make building websites even simpler?

AI Agents may help!

Devin can build and deploy apps end to end.
Devin makes an interactive website which simulates the Game of Life! It incrementally adds features requested by the user and then deploys the app to Netlify.

Website Mini-Competition

Step 1: Create your website

Step 2: Drop your website link here→

     (Due: April 4th)

Step 3: April 5th, this Friday, collect your award!

     Time: 12:30-1:30 pm

     Location: Baker systems 210E

Thank You