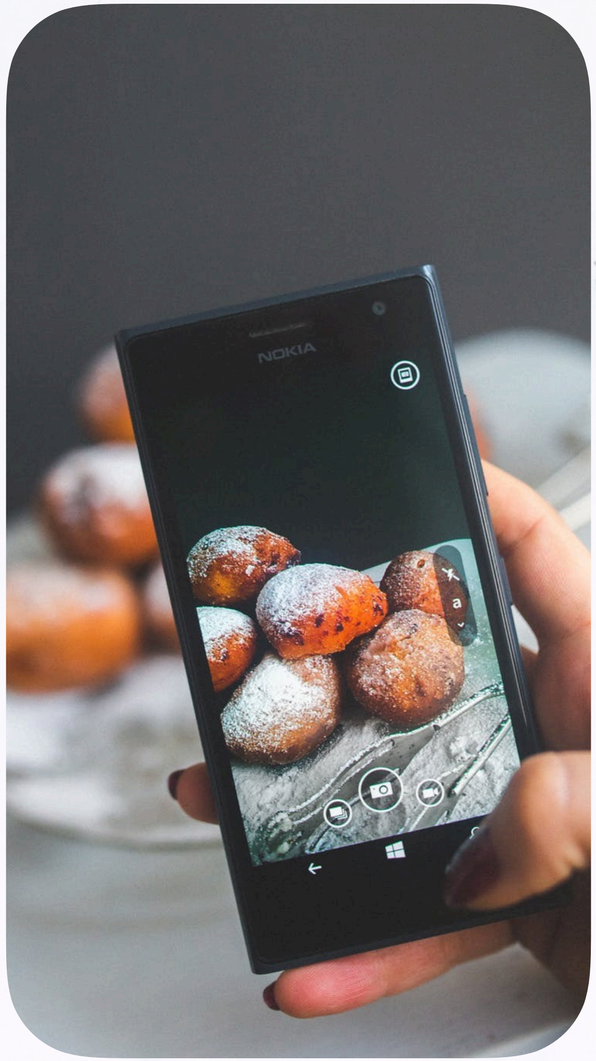
PIC-A-RECIPE

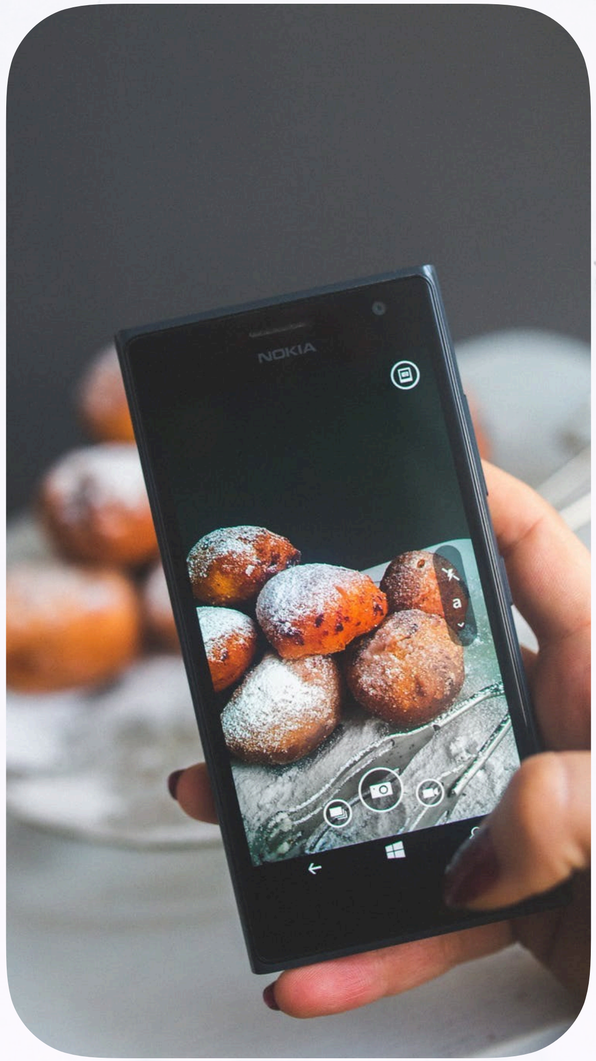
PICTURE-BASED RECIPE RECOMMENDER

Xinru (Flora) Cheng

MOTIVATION



MOTIVATION



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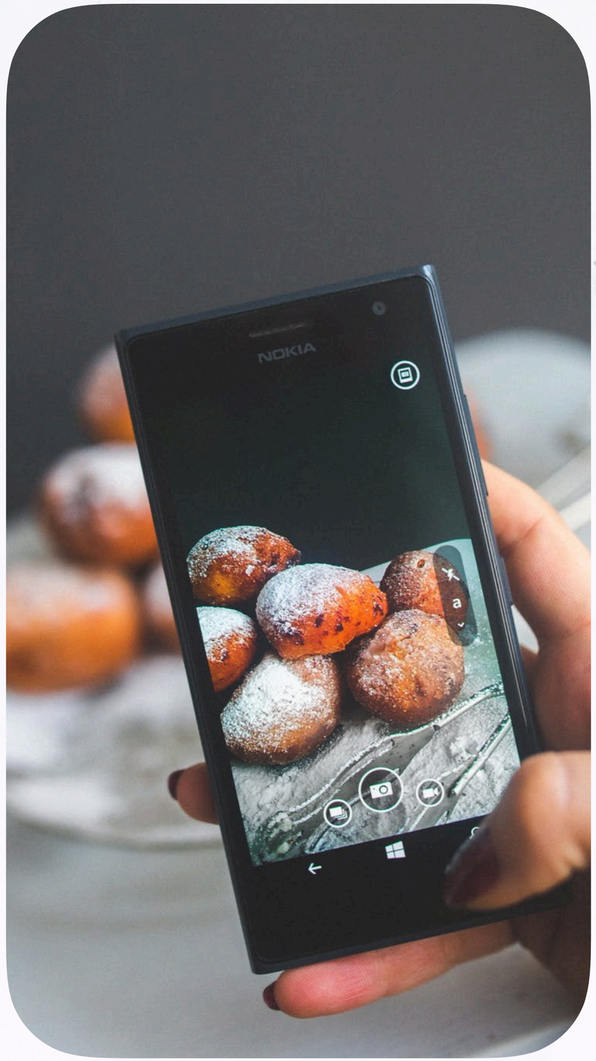

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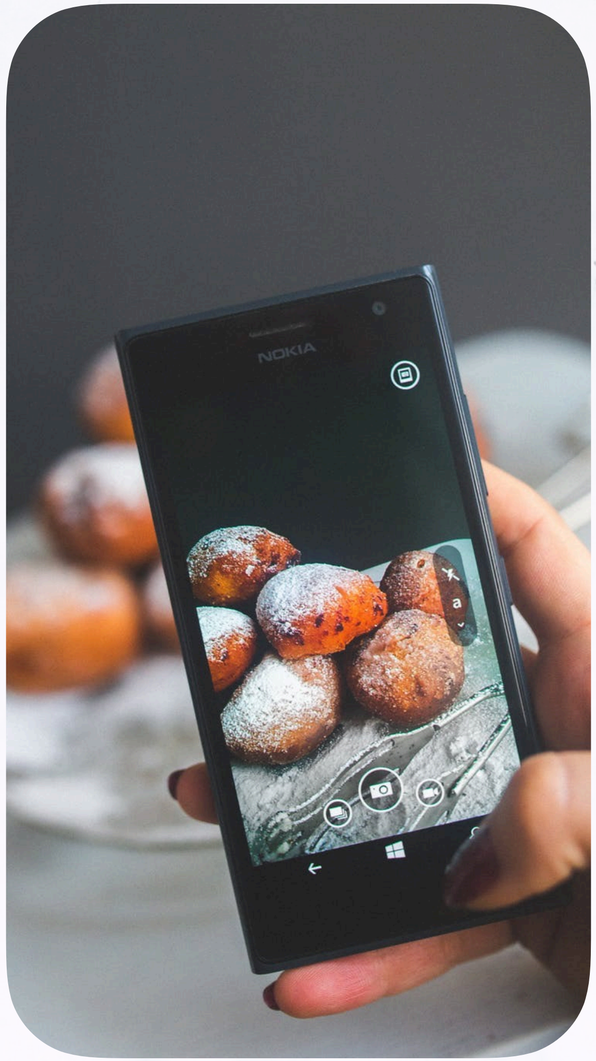

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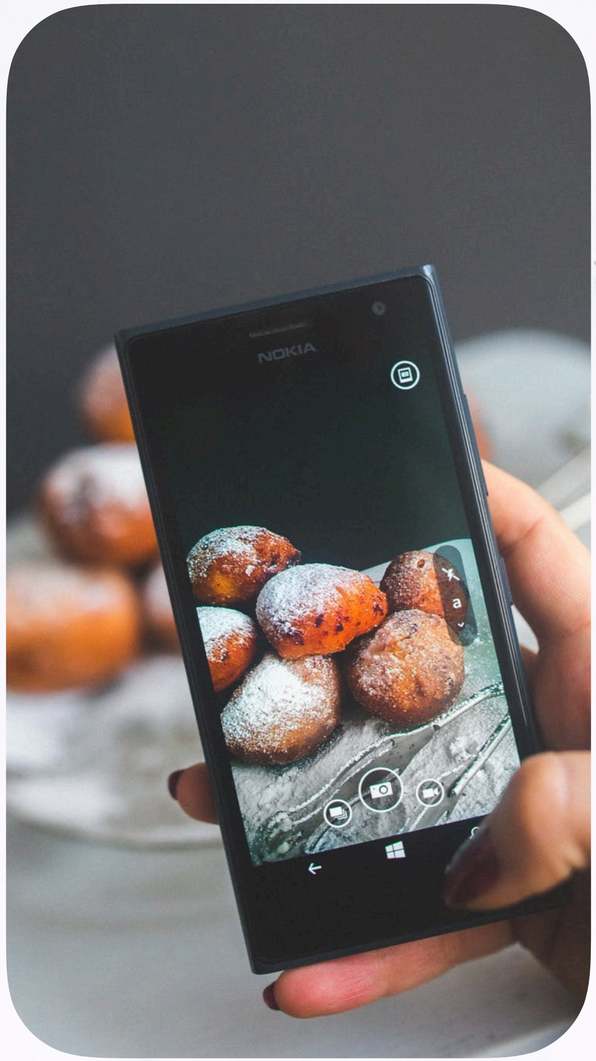

METHODOLOGY

Data

- Recipes with images scraped from bbc.co.uk and allrecipes.com

METHODOLOGY

METHODOLOGY

Tools

METHODOLOGY

Tools

User input

METHODOLOGY

Tools

User input

METHODOLOGY

Tools

Flask

User input

METHODOLOGY

Tools

Flask

User input

METHODOLOGY

Tools

Flask

CNN

VGG16

4096 features

User input

Feature Extraction

METHODOLOGY

Tools

Flask

Keras

amazon web services

scikit learn

CNN

VGG16

4096 features

User input

Feature Extraction

METHODOLOGY

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CNN

VGG16

4096 features

cosine similarity

User input

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4096 features

cosine similarity

User input

Feature Extraction

Recommendation

METHODOLOGY

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Flask

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CNN

VGG16

4096 features

cosine similarity

User input

Feature Extraction

Recommendation

RESULTS

RESULTS

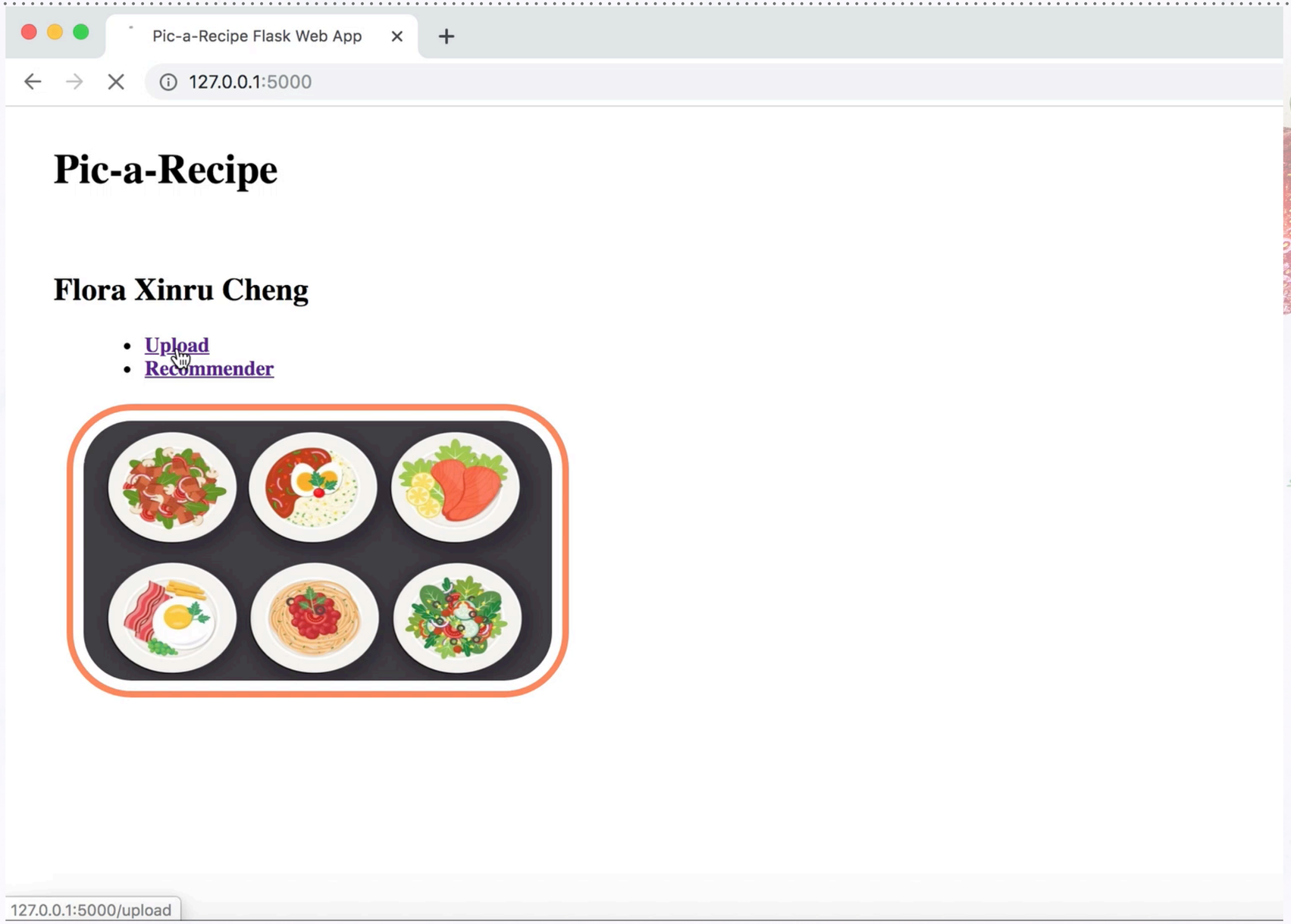
RESULTS

RESULTS

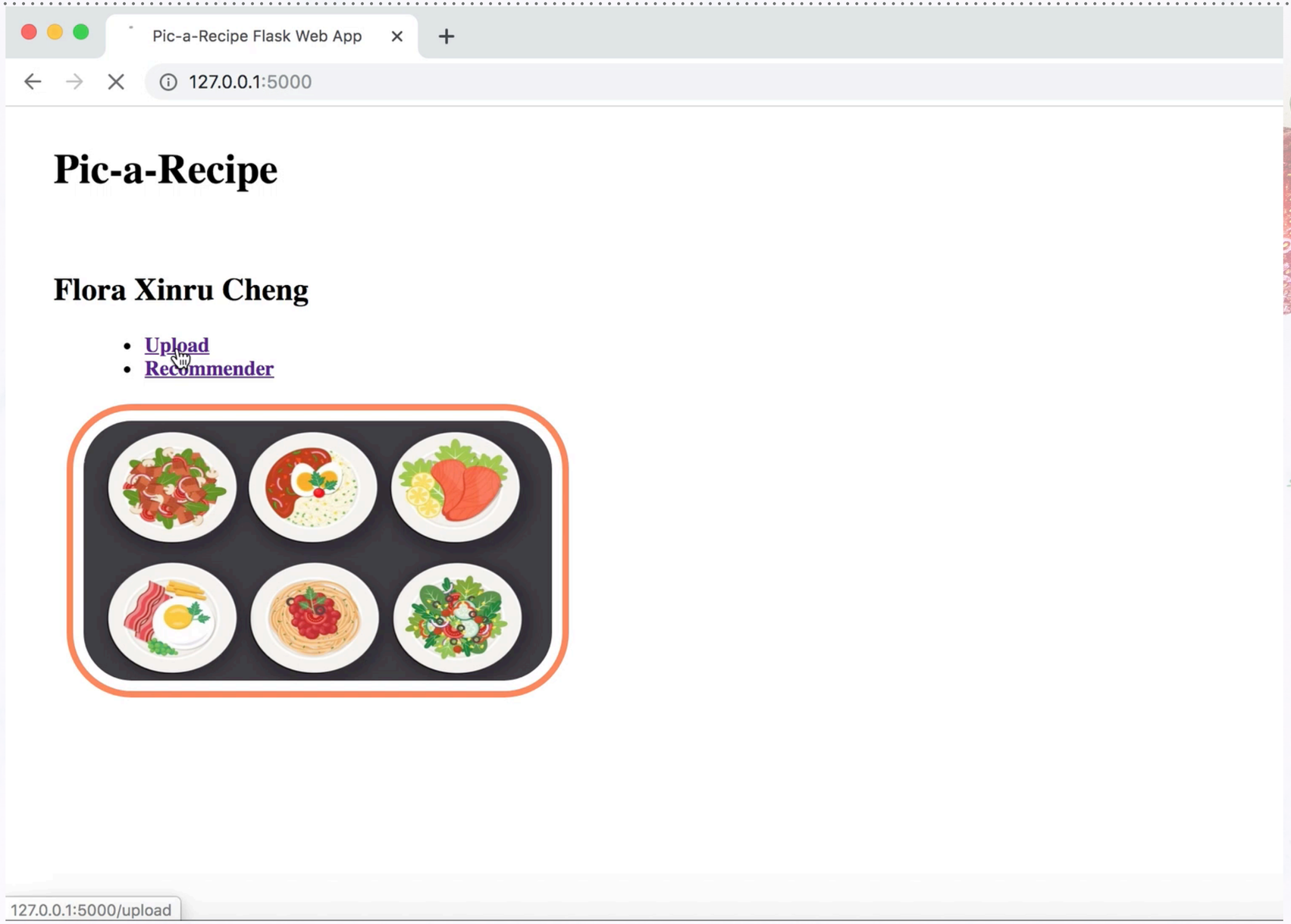
RESULTS

RESULTS

DEMO


Pic-a-Recipe Flask Web App
127.0.0.1:5000
Pic-a-Recipe
Flora Xinru Cheng
Upload
Recommender
127.0.0.1:5000/upload

DEMO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CONCLUSION & FUTURE WORK

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- Image similarity using features from CNN model (VGG16) gives good results for certain recipe types

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Future Work

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Conclusion

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Future Work

- Mobile-friendly Flask app

CONCLUSION & FUTURE WORK

Conclusion

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Future Work

- Mobile-friendly Flask app
- Clustering of recipes in topic space - NLP

THANK YOU!

Stop by for a Flask app demo!

Come talk to me anytime about Machine Learning, NLP, and food!

Xinru (Flora) Cheng

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