Nurlat Bekdullayev

+7-706-408-0075
nurlat.bekdullayev@alumni.nu.edu.kz
nurlat
/natuspati

Projects

Personal Blog using Flask

- A blog written using Flask framework.
- User and content data is stored in Postgre database.
- Blogposts are assembled via WTForms and Jinja templating.
- Deployed on Heroku WSGI server.

Scrapper and Archive Manager for Scientific Articles

- Beautifulsoup/Selenium based scrapper.
- Search for scientific articles using university-provided credentials and bib-tex filters.
- Save and format headers for later LaTeX use.

Calibration module for image-based measurements

- Pure Python implementation of Calib3D module of OpenCV
- Utilizes OOP principles (the original uses procedural programming).
- Expanded functionality by integrating SciPy Minimize functions.
- Added visualozation tools for calibration results.

Experience

Computational Imaging Group, KAUST Sep.2021-Aug.2022
Research assistant *Saudi Arabia*

- Developed a new reconstruction model for single-camera multi-view surface reconstructions.
- Added functionality from SciPy's toolkit to Calib3D module in OpenCV.
- Documented workflow of the new calibration algorithm.
- The metrological application is soon to be publicly released.

Education

King Abdullah University of Science and Technology 2019 – 2021
MSc in Computational Mechanical Engineering *Saudi Arabia*

Nazarbayev University 2015 – 2019
BEng in Mechanical Engineering *Kazakhstan*

Skills

Programming languages **Python**, Javascript, HTML5/CSS3, MATLAB
Frameworks Flask, Django
Back-end technical stack Jinja2, SQLAlchemy ORM, Django REST Framework, Django ORM, MySQL, Postgre
Other technical stack Git, Selenium, Bash, OpenCV, TeX
Relevant coursework Distributed Database Systems CS245, Computer Imaging CS394U

Certificates

Online Django for Everybody, course offered by University of Michigan.
Online Advanced Django: Mastering Django and Django Rest Framework Specialization.