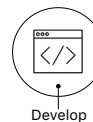


Science



Develop



Concept

OPEN-SOURCE PACKAGES

CocktailShaker
GlobalChem
MolPDF
GroLogs, GroMASS

NEURAL NETS

Meglodon (Starcraft 2 Bot)
IUPAC → SMILES (RNN)
Peptide Recognition (CNN)

PLOTTING LIBRARIES

Plotly
Matplotlib/Seaborn

CHEMINFORMATIC LIBRARIES

RDKit, MolVS
Indigo Renderer
nglviewer

OTHER PYTHON LIBRARIES

Pandas, NumPy, SciPy,
SQLAlchemy, concurrent,
Tornado, MDAnalysis

MOLECULAR DYNAMICS

CHARMM-GUI
GROMACS
Chimera

FRONT-END

HTML5/CSS3/jQuery
Vue.JS, Backbone.JS,
Turbogears
REST/GraphQL
OpenGL/WebGL

BACK-END

Postgres, mySQL

DEV-OPS

Docker, Terraform
Azure
Vagrant/Ansible
OAuth, SSO, Vault
Bash/UNIX environments

AUTOMATION

Katalon Studios/Selenium
Cypress
JENKINS

PUBLICATIONS

Journal of Open
Source Software,
10.21105/joss.01992

EXPERIENCE

Ph.D. Student

University of Maryland | Baltimore, MD (August 2020 - Present)

- Investigating biopolymer stability and self-assembly with varying electric field strengths using GROMACS to perform simulations, MDAnalysis to analyze data, and plotly to generate high-quality publication graphs.
- Working with 1500 CPU Cores and several NVIDIA 3080 GPU Cards.

Co-Founder

LifeSciHack | Austin, TX (2019) & London, UK (2019)

- Launched the first Life Science Hackathon uniting programmers and scientists to work on industry problems held in WeWork in Austin and the Royal Society of Arts in London sponsored by the Mozilla Open Science Foundation.

Bioinformatics Scientist/Project Lead QA/Implementation Engineer

L7 Informatics | Austin, TX (July '17 - Present)

- Helped build a successful LIMS start-up company and contributed to lead projects landing both Series A (3 Million), Series B (10 Million), and Part 11 Electronic Records FDA Compliance.
- Spearheaded Bioinformatic, Gene and Cell Therapy Phase III Clinical Trials, Environment Data Analysis Projects.

Graduate Student Researcher

Pellechia Group, U.C. Riverside School of Medicine | Riverside, CA (Oct. '16 - April '17)

- Ran both computational and experimental experiments in parallel to do High Throughput Screening of non natural peptides against a metalloproteinase specific to rheumatoid arthritis.

Software Engineering Intern

Macromoltek | Austin, TX (May '16 - Aug '17)

- Integrated BiasMV and added additional functionality for antibody modeling into their website built on Turbogears.

Medicinal Chemist Intern

University of Texas M.D. Anderson Cancer Center | Houston, TX (May '15 - Aug. '15)

- Synthesized small organic molecules against bromodomain receptors to induce apoptosis in breast cancer cells.

Undergraduate Student Researcher

May Group, University of Houston | Houston, TX (May '14 - Aug. '14)

Humphrey Group, U.T. Austin | Austin, TX (Aug '15 - May '16)

Nadasdy Group, U.T. Austin | Austin, TX (Jan. '13 - Aug. '13)

EDUCATION

Ph.D. Pharmaceutical Sciences

University of Maryland School of Pharmacy (May '24)

M.Sc. Organic Chemistry

Specialization: Experimental Therapeutics, GPA 3.7
University of California, Riverside (May '17)

B.S. Biochemistry

Computer Science Minor, GPA 3.3, Major 3.5
University of Texas at Austin (May '16)

AWARDS & GRANTS

🏆 Capsule Hackathon:
3rd Place (2020)

🏆 Mozilla Open
Science Grant (2019)

🏆 Dean's Distinguished
Fellowship (2016-2017)

🏆 Teaching Assistant
of Year Award (2015)

EDITORSHIP

Journal of Open Source Software (2019 - Present)

Journal of Open Research Software (2019 - Present)