



Education

University of Wisconsin Madison | Madison, Wisconsin 2018 - 2021
Bachelor of Science | Computer Science

Experience

Software Engineer Intern, UW Graphics Laboratory June 2020 - Current

- Built new online experiment container using jsPsych, Flask, and MySQL for Amazon MTurk.

Student Developer for Kodi, Google Summer of Code Summer 2020

- Wrote new web interface in Elm for the Kodi (XBMC) media library which has 38 million users.
- Supports live playback and organization of media over web sockets using the JSONRPC API.

Software Engineer Intern, Morgridge Institute for Research 2019 - 2020

- Wrote scraping script to obtain data using NCBI E-Utils API
- Worked in Python on a pipeline for measuring abundance of proteins in RNA-Seq reads
- Helped transition project testing framework from unittest to pytest

Software Engineer Intern, Los Alamos National Laboratory 2017 - 2018

- Worked on a fitting application for fitting models to data in C++ and PyBioNetFit in Python
- Created graphical user interface for PyBioNetFit in PyQt 5
- Wrote tests for PyBioNetFit using Nostest in Python

Projects

Skills

Languages:

- Python ●●●●○
- Java ●●●●○
- C ●●●●○
- Javascript ●●●●○
- Elm ●●●●○
- HTML/CSS ●●●●○

Libraries:

- Three.js ●●●●○
- Firebase ●●●●○
- Elm-UI ●●●●○

Frameworks:

- Node ●●●●○
- Electron ●●●●○
- Pytest ●●●●○
- Flask ●●●●○

Scripting:

- Bash ●●●●○
- Git ●●●●○

Modeling:

- Solidworks ●●●●○
- Maya ●●●●○

Publications

- Hlavacek, W. S., Csicsery-Ronay, J. A., Baker, L. R., Álamo, M. D. C. R., **Ionkov, A.**, Mitra, E. D., ... & Thomas, B. R. (2019). A step-by-step guide to using BioNetFit. In Modeling Biomolecular Site Dynamics (pp. 391-419). Humana Press, New York, NY.
- Mitra ED, Suderman R, Colvin J, **Ionkov A**, Hu A, Sauro HM, Posner RG, Hlavacek WS (2019) PyBioNetFit and the Biological Property Specification Language. iScience 19: 1012-1036.
- Mitra, E., Suderman, R., **Ionkov, A.**, Hlavacek, W., & National Institutes of Health. (2018). PyBioNetFit. Los Alamos National Lab.(LANL), Los Alamos, NM (United States).