Kristian Eschenburg

Data Scientist

keschenburg90@gmail.com (949)-510-0505 Seattle, WA LinkedIn GitHub Technical Blog

Experience

CuriBio

Data Scientist

Seattle, WA | June 2021 - current

- Implementing computer vision tools using PyTorch to improve efficiency and reduce cost of cell differentiation pipelines
- Designing RESTful web apps w/ AWS + MySQL for image storage and analysis
- Building out proprietary software platform for analysis of tissue-engineered muscle cells, yielding 2x speedup in end-to-end processing over original tool

University of Washington

Ph.D. Student

Seattle, WA | Sept 2014 - Dec 2021

- Developed computer vision models based on unsupervised + supervised ML algorithms for segmenting cortical tissue using MRI, implemented in Python
- Designed graph neural network models to apply population-level cortical maps to unmapped MRI images, improving segmentation accuracies by >15%, relative to conventional CNN models
- Initiated cross-departmental study on brain dynamics, resulting in high-impact publication
- Developed turn-key pipeline for processing 1000+ adult human MRI scans (>1.5TB) using shell scripting and distributed computing (SGE)
- Thesis work resulted in 2+ high-impact peer-reviewed publications, 2+ international conference posters, and 3+ conference presentations

Phase Genomics

Software Engineering Intern
Seattle, WA | April 2017 – June 2017

- Developed genomic clustering algorithms for proprietary Python-based software platform
- Learned principles of testing-driven software development (pytest) and cloud computing (AWS)

Pacific Northwest National Laboratory

Data Science Intern

Richland, WA | June 2016 - Sept 2016

 Studied data structures related to dynamic graphs and networks, translated into high-impact journal paper

Skills

- PyData stack
- SQL (MySQL)
- RESTful APIs
- Machine + deep learning
- Graph neural networks
- Image processing
- Distributed computing (SGE, Kubernetes)
- Data structures + algorithms
- Object-oriented programming

Education

Ph.D.

Biomedical Engineering

University of Washington Sept 2014 – Dec 2021 Seattle, WA