

Edmund A. Miller

COMPUTATIONAL BIOLOGIST · SOFTWARE DEVELOPER

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Experience

Olypsis Technologies

Dallas, Texas

BLOCKCHAIN SOFTWARE ENGINEER

May 2018 - PRESENT

- Lead development and design of completing tasks including, creating a functioning test suite for legacy code, containerizing the entire system, designing and implementing a REST API and Smart contracts for the system.
- Created a novel ERC20 payment splitter Smart contract in Solidity for Digital Assets Foundry.
- Improved velocity by creating in house standards for CI/CD for Javascript and Solidity projects using linters and test suites to ensure agile development practices through automated deployments, and creating auto generating documentation from inline code documentation.
- Developed the DAWN protocol to transfer files in a peer to peer fashion, that is decentralized and does not rely on a 3rd party to be trusted using Whisper, IPFS, AES256, and React.
- Developed Smart contracts for the Saro Project to create smart contracts for users to create non-fungible tokens of their real estate and split the ownership of the property using fungible tokens.

Functional Genomics Lab(Prof. Tae Hoon Kim)

Richardson, Texas

RESEARCHER

Jul 2015 - PRESENT

- Created a pipeline to reproduce and create new eRNA predictions using Snakemake.
- Used techniques such as containers, conda environments, and high-performance computing clusters.
- Created various resources for the lab such as JupyterHub and the organization of the lab's documentation.
- Designed PCR primers for cell identification, target transcripts, and genotyping.
- Performed RNA isolation from cells that were treated with LPS-particles and used qPCR to quantify eRNA transcript levels.

Skills

| | |
|-----------------------------------|--|
| Tools | Linux, Emacs, Vim, Git, NixOS, Snakemake, Conda, Slurm, HTCondor, Sphinx, Make, AWK, Sed, GitHub, GitLab |
| Programming | Python, Node.js, Rust, Clojure, R, Solidity, BASH/ZSH, LaTeX |
| DevOps | Docker, Nix, Terraform, Kubernetes, Ansible, GCloud, AWS, GitLab-CI, GitHub Actions, Travis-CI |
| Front-end | Vue.js, Nuxtjs, Gridsome, Tailwindcss, GraphQL, React, Nextjs, Gatsby |
| Decentralized Technologies | IPFS, Whisper, Ethereum Virtual Machine, Hyperledger |

Education

University of Texas at Dallas

Richardson, Texas

M.S. IN BIOTECHNOLOGY

Aug 2018 - Dec 2019

- Academic Excellence Scholarship 2015-2019
- Fast-Track Program

University of Texas at Dallas

Richardson, Texas

B.S. IN MOLECULAR BIOLOGY

Aug 2015 - Aug. 2018

- Academic Excellence Scholarship 2015-2019
- President's Scholarship 2016-2017
- Continuing Student Scholarship 2017-2018

Projects

Doom-Emacs

GitHub

CONTRIBUTOR

Mar 2018 - PRESENT

- Worked on Reference, Conda, and Solidity modules.
- Maintaining several personal modules such as Snakemake and LSP language support.

edmundmiller.dev

GitHub

CREATOR

Jan 2019 - PRESENT

- Featuring a complete rewrite using Gridsome to hydrate the JAMstack, powered by Vue.js, Tailwindcss, GraphQL, and Markdown.
- Deployed using Zeit Now, and automatic semantic releases and changelogs from commit messages