LUKE COOK

Software Engineer

@ invocatis@gmail.com

(607) 220-4047

Aurora, New York

in linkedin.com/in/invocatis

github.com/invocatis

EXPERIENCE

Software Engineer Contractor

Hyperfiddle

- March 2020 September 2020
- Remote
- Full Stack Clojure(script), Datomic CRUD application framework
- Setup CI/CD pipeline using CircleCI and AWS ECR and ECS, configured in Terraform
- Formalized an extensible algebra for Datomic statements
- Research and Development:
 - Reactive streams for rendering in Clojurescript
 - More ergonomic, and idiomatic category theory based programming in Clojure
 - -i Pattern Matching algorithms

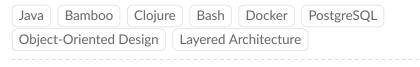


Application Programmer II

Cornell University

m June 2019 - June 2020

- Backend of Genomic Data ETL application
- Created CSV file digest framework
 - Data is streamed from file to PostgreSQL Database
 - JSON file declares how table rows are gotten from file
- Developed a framework for automated system testing; focused on composability, ease of use, and self-cleanup
 - Developed domain-specific scripting language to simplify semantic layer of test suite in 3 layers: Arrange/Act, Assert, and Cleanup
 - Was implemented in 3 layers: A framework backend (written in Clojure), a business logic middle layer (Written in Java), and a testing logic script suite (Written in syntax defined by backend framework)
 - Cleanup ensured automatic test independence and idempotency
 - Produced JUnit results for integration with Bamboo CI/CD Pipeline



Software Engineer Coop

Intuit

mary 2018 - July 2018

- Mountain View, California
- Back end of Account Signup Springboot Application
- Wrote a Java API for document upload, indexing documents in SQL Database and storing in AWS S3



EDUCATION

Bachelor's of Computer Science

Rochester Institute of Technology

₩ 2017

Rochester, New York

LANGUAGES

Clojure(script) Java Haskell



TECHNICAL SKILLS

SQL	MongoDB	Bamboo		CircleCI
AWS	Datomic	Git	Docker	
Context-Free Grammar			Regex	Bash

PROJECTS

retort

State Managment for Hiccup

github.com/invocatis/retort

- CSS-like DSL for Reagent state dependencies
- Allows separation of view and state code; no atoms in view code
- Optimized to work with Reagent.

eldritch

Algebraic Data Types & Pattern Matching

sithub.com/invocatis/eldritch

- Create algebraic data types using the 'data' macro; extend types with Java interfaces and Clojure protocols
- Pattern matching creates efficient compile time and runtime matching algorithms.
- define macro allows pattern matching to be used in function definitions; creates multimethod-like polymorhpism.

motif

Recursive Pattern Matching in Clojure

github.com/invocatis/motif

- Comprehensive, clean DSL for matching features of recursive, mixed data structures
- Patterns are data: Clojure collections and functions compose into patterns