Douglas Blumeyer

software engineer

San Francisco Bay Area (open to remote)

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Employment Experience

Omada Health

Software Engineer 2019 — 2020

Pivotal Labs

Software Engineer 2015 — 2018

Stanford Virtual Human Interaction Lab (VHIL)

Graphic Designer + Research Assistant + Programmer 2005 — 2008

developed API for new biometric wearables overhauled integration testing system overhauled stylesheet processing system resurrected and documented automated database backup process

technical lead on software development engagements; whether green-fielding or working in a legacy code base, advise product stakeholders on the most sustainable technology and product decisions

pair-programming, iteration planning

train client developers to deeply understand extreme programming practices (Don't just teach them to fish, train them to be fishing instructors) to be allies in transforming their organization's culture

designed an interactive Virtual Reality "haunted house" to demo VHIL to investors, involving mind-bending gravity flips studied human psychology in virtual environments, focusing on the mutability of identity and channels of persuasion in Massive Multiplayer Online Role Playing Games and social networks

Recent Projects

RTT Library in Wolfram Language

github.com/cmloegcmluin/RTT

Sagittal microtonal notation system

github.com/Sagittal 2020 —

Musical Patterns

github.com/MusicalPatterns 2017 —

Houndstooth

github.com/Houndstooth 2015 — tools for exploring, analyzing, comparing, optimizing, and visualizing regular temperaments of just intonation (applications of linear algebra to microtonal music theory)

implementations for all four Sagittal microtonal notation types utilities for finding, naming, and analyzing microtonal pitch alterations, and the beginnings of web app for manipulating them

dynamically control parameterized musical experiments uses WebAudio and WebVR for spatial aspects to some pieces

extrapolate principles behind common 2D patterns to generate novel fractals, animations, songs, 3D shapes, and virtual realities.

Skills

JS: Node, ESNext, TypeScript, Webpack **FRP**: React/Redux, Immutable.js, Elm

XR: WebVR, Unity3D

XP: TDD, continuous deployment

Web: PCF, GCP, Python, Docker, SQL, Sass, SVG, Rails, Spring Boot, Kotlin

Machine Learning: Tensorflow, DCGAN

Math: Wolfram Language

Other: xenharmonic music composition, theory, and pedagogy; film making

and criticism.

Education