

# kaya-sem.com

Project Documentation



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## **Abstract**

An interactive portfolio website featuring a force-directed graph visualization that showcases my projects and their technological interconnections. Each project node links to comprehensive LaTeX-generated documentation, allowing visitors to explore the technical details and design decisions behind each project.

Document version: 1.0

## 1 Project Overview

### 1.1 Key Features

- **Force-Directed Graph:** Projects and technologies as interactive nodes in a physics simulation
- **Project Documentation:** LaTeX-generated PDF specifications for each project

## 2 Technology Choices

### 2.1 The Stack

- **Svelte:** Open-source and simpler compared to other frameworks. While I would have preferred to avoid JavaScript entirely, D3 integration necessitated its use.
- **D3.js:** The core visualization library, doing most of the heavy lifting
- **PDF.js:** For seamless documentation viewing

## 3 Reflections

The website is overkill for my usecase, but I am madly in love with graphs and semantic systems. For larger datasets, this may be more interesting. I imagine myself mapping the connections between GitHub projects, or creating an interactive visualization of the fashion world - linking designers, fashion houses, and runway shows.