Fantasy IDEs

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Abstract

This thesis presents a new paradigm for integrated development environments (IDEs) that investigates how gestural interfaces and performative elements can transform the act of coding into a more expressive and engaging practice. Through a series of experimental interfaces, which I term "Fantasy IDEs," I explore how development environments can transcend their utilitarian origins to become dynamic mediums for creative expression. While traditional approaches to making coding more accessible often focus on simplification (as in p5.js editor) or visual abstraction (as in TouchDesigner), this work instead reimagines the IDE as a performative space where code becomes a malleable, gestural medium. Through these investigations, I want to elevate play and whimsy into the coding process through the IDE, with the goal of making the somewhat tedious task of computer programming much more wild, unpredictable and creative, while suggesting new possibilities for the future of creative coding environments. This work will show how IDEs are valid mediums of creative expression that are often overlooked.

Some features of the Fantasy IDE I will present: Soft source control, bidirectional visual programming to text programming vice versa, integrated AI critique, and visual program flow.

Keywords

Creative coding, integrated development environment, livecoding, performance, graphics

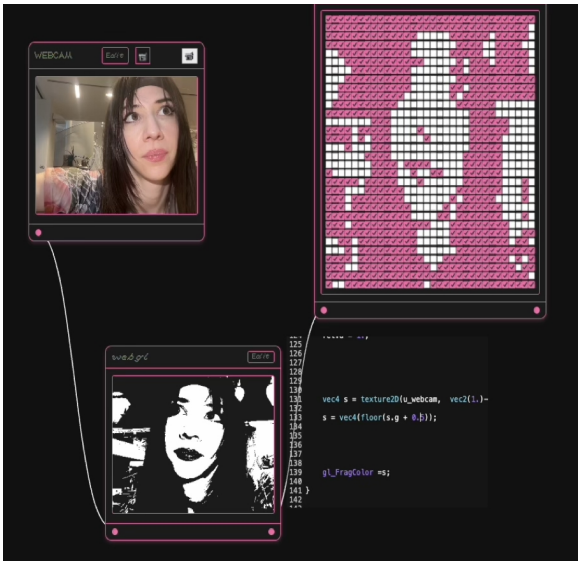

Figure 1: Sketch of a visual dataflow from webcam to webGL to Javascript checkboxes.

Declaration on Generative AI

During the preparation of this work, the author used Claude in order to: format the references. After using this tool/service, the author reviewed and edited the content as needed and takes full responsibility for the publication's content.

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