Job Description/Why We’re Hiring

We are seeking a postdoctoral candidate in the broad fields of Computer Science and Applied Mathematics. Because this role will involve making recommendations and decisions as well as executing, qualified applicants must have knowledge in all stages of software development, have a high degree of intellectual curiosity, and must be a self-starter who focuses on quality results.

Our company mission is to revolutionize the way we do math. Our product Figure, is a comprehensive modern mathematics system for students and professionals to effortlessly explore and solve complex equations through a simple and artful interface, elegant design, and powerful math engine. You can learn more at www.figuremath.com. You will play an integral part in creating an entirely new way of doing math.

We are in a rare situation as a nicely-funded startup with aggressive but achievable goals. Our company has capital to execute through all of 2020 and beyond, based on National Science Foundation (NSF) grants and private investment. We have spent several years on R&D and have a solid current code base and a live product on the market. Over the next year we are fleshing out the product into a comprehensive mathematics platform. We are concentrating on revenue generation from students, schools, and online tutoring companies as we do it.

You’ll be working initially alongside four other developers, the company founders and two Full-Stack Web Developers, collaborating daily on the various layers of the infrastructure. You will be in on the ground floor of making key architectural and implementation decisions about the app going forward. All candidates must be able to work in the Boulder/Denver area, and authorized to work in the United States.

Our mathematics platform consists of a suite of web and mobile apps. The core math engine is built in C# and runs on the Unity game engine, which we deploy to various platforms. Our major focus now is on building the infrastructure for a web-based version of Figure. The teacher-student dashboard is built with standard full-stack web development tools (javascript, node.js, React, PostgreSQL, Firebase, etc…) along with a javascript-C# communication layer to interface with an embedded WebGL/WebAssembly canvas. In addition, we are building a networked communication system connecting users for realtime communication of mathematics; and a usable API for embedding Figure into existing architectures.

You will be involved with many of the higher level architecture decisions and implementations. Specifically, we are looking for a candidate who can take ownership of the real-time communication system and the integration API. But, as an early hire at a fast growing startup, you will be tasked with many different things that will keep you on your toes. Among the planned activities that we are actively working on or may come off the back-burner in the next year:

- Building a user-interface for teachers to create math problems and share them to their students
- Building realtime network tools for teachers to push problems to their students in a classroom
- Architecting and implementing a realtime communication system connecting students and teachers/tutors for online communication of mathematics
• Creating an API layer for integration of Figure in third-party platforms such as Learning Management Systems and Online Tutoring Platforms
• Collecting and analyzing data about student progress through problem sets and equation solving patterns
• Using AI to guide students through solutions to math problems

We are looking for a candidate who is capable of making important architectural decisions and executing on those decisions. An ideal candidate would have a detailed knowledge base in:

• Networked apps
• Realtime communication systems for web and mobile apps
• Full-stack web development
• API development and integration
• Unity game engine (preferred)
• C#, Javascript, node.js, React