

BASIC DETAILS

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First Language: English

Location and Timezone: Brooklyn, New York, USA (UTC -4)

Previous Open Source Contributions:

Although I am just getting started in open-source development, I have begun contributing to various projects. I have started reviewing issues on platforms like FreeCodeCamp and have recently started reviewing issues and the codebase for the Sugar Labs' Pippy debugger repository. I am actively learning and engaging with the community through the GitHub repositories to familiarize myself with the project structure, coding standards, and best practices. I've joined the Sugar-devel mailing list and started familiarizing myself with the development environment and community practices.

Why I'm a Good Fit for Sugar Labs:

I come from a background in Computer Science with interests in **Full-Stack Development, AI, education, and storytelling**, which directly aligns with the Story Builder project. I've been consistently involved with Sugar Labs over the past few days by joining the element channel, developer mailing list and going through issues. My experience with Python, AI (especially LLMs), and full-stack work gives me confidence to build something useful for the Sugar ecosystem.

PROJECT DETAILS

Project Title: Story Builder: AI Enhanced Storyteller

What am I making?

An interactive AI-powered Story Builder within Sugar Labs that helps young learners create and explore stories using simple prompts. The interface will allow children to engage with an LLM-based assistant that guides them in crafting stories collaboratively.

How will it impact Sugar Labs?

It will introduce **AI-driven creativity** to the Sugar learning platform, giving young users an engaging experience with storytelling and language. Story Builder aligns perfectly with Sugar's educational mission, fostering imagination and writing skills while subtly introducing AI tools to children in a safe, age-appropriate way.

Technologies to be used:

- Python (backend + LLM integration)
- React/JavaScript (UI development inside Sugar Activity)
- Open Source LLMs (like GPT-Neo or alternatives that allow local/lightweight usage)
- Sugar Labs toolkit and dependencies
- I am also open to exploring alternative technologies or LLM architectures as advised by mentors, ensuring efficient and ethical deployment.

TIMELINE

Community Bonding (May 8 - June 1)

- Read documentation and previous discussions
- Join meetings if any
- Finalize project plan
- Identify classroom-friendly prompt engineering strategies
- Test lightweight LLMs and explore compatibility with Sugar environment

Phase 1: (June 2 - July 20)

Goal: Build the foundation

Week 1–2:

- Set up development environment
- Create basic user interface for story input
- Build API bridge for LLM-based prompt-response interaction

Week 3–4:

- Add features to personalize prompts based on age
- Implement response filtering for age-appropriate content
- Begin testing interaction loop (prompt → response → user edits → suggestion)

Deliverable for Evaluation 1:

- A working prototype that supports story prompts and age-safe response generation

Phase 2: (July 21 - August 25)

Goal: Polish features and integrate feedback

Week 5–6:

- Add customization options (e.g., character names, genre, story length)
- Enable story saving and continuation from previous sessions

Week 7–8:

- Gather mock feedback from educators or test group (if possible)
- Make changes based on feedback (simplify UI, add helper tips, etc.)
- Explore basic fine-tuning or RAG implementation if needed.

Deliverable for Evaluation 2:

- Fully interactive Story Builder with customization, feedback integration, and LLM-backed suggestions.

Final Weeks

- Bug fixing and performance improvements
- Documentation and final walkthrough
- Final mentor review and handover

Hours Per Week:

7 days a week and approximately 30 hours per week (more if needed)

Progress Reporting:

- Weekly GitHub updates
- Summary emails to mentors
- Bi-weekly blog post (if preferred by org)

Post-GSoC Plans

I'd love to continue contributing to Sugar Labs after GSoC, since it intersects **education** + **AI**. I'm also interested in helping onboard new contributors and improving existing AI projects in Sugar.

MENTORS

I am interested in working with great mentors. I've reviewed the contributions and background of mentors for GSoC SugarLabs. I would love to learn from Walter Bender, who being a co-founder of Sugar Labs and long-time developer of Turtle Blocks and Music Blocks, brings unmatched domain expertise and Sumit Srivastava, whose work in backend features and Sugar infrastructure will be highly valuable for server-side Git integration.