#### SASTHA RUBAN U

Ramanathapuram, TN | P: +91 93440 86371 | sastharuban24@gmail.com

#### **EDUCATION**

### MOHAMED SATHAK ENGINEERING COLLEGE

Kilakarai,TN

Bachelor of Engineering in Computer Science Engineering

Expected June 2026

Major in Computer Science

Cumulative GPA: 8.13/10; 2022-2026

Relevant Coursework: DSA, Operating Systems, Compiler Design

### **SKILLS**

System & Virtualization: GNU/Linux | VirtualBox Programming & Scripting: C/C++ | Bash | Python | Git

Web & App Development: React Native | Expo | JavaScript | Android Studio

Networking & Security: TCP/IP | Wireshark | Nmap | Subnetting

### TECHNICAL PROJECTS

## MiniC Compiler | GitHub | C11/POSIX

June 2025

Type: Self-directed compiler project (120 hours)

## **Technical Implementation:**

- Parsing: Recursive descent with Pratt precedence (\*/ > +-)
- Symbol Table: Hash-based O (1) variable lookup
- Error Handling: Line/column-aware diagnostics
- Validation: Syntax error diagnostic

### Core Skills Demonstrated:

- Compiler Construction: Lex → Parse → AST → Eval
  Systems Programming: POSIX, Memory Management
- Debugging: GDB, AST Visualizations

# VT340 Terminal Portfolio | GitHub | JavaScript/HTML5/CSS

June 2025 Updated

## Technical Implementation:

- Terminal Emulation: DEC VT340-style interface with CRT effects (scanlines, phosphor glow)
- Interactive Commands: Bash-like navigation (history, autocomplete, interrupts)
- Dynamic Rendering: HTML5 Canvas + CSS filters for authentic CRT simulation
- Theming System: Green/Amber/Blue/Mono modes with live switching (theme [color])

# Core Skills Demonstrated:

- Frontend Engineering: DOM manipulation, event-driven UI
- Nostalgic Design: Pixel-perfect retro aesthetics with modern web tech
- Debugging: Chrome DevTools for animation timing/rendering
- Tooling: ESLint, GitHub Pages deployment

Live Demo: <a href="https://gappyjosuke.github.io/Retro-Portfolio/">https://gappyjosuke.github.io/Retro-Portfolio/</a>