

Design Document

Sourav Das

Author: Sourav Das

Course: CS5610

Tech stack: Vanilla **HTML5/CSS3/ES6 modules**, Bootstrap 5 (utilities only). ESLint config provided.

Unique JS: Interactive “Book” on About page (open/close + page flips), Particle header on Projects page, Reveal-on-scroll.

1) Project Description

1.1 Elevator pitch

A fast, accessible, and elegant personal website that showcases my background (About), projects, education, and professional experience. It’s optimized for recruiters and instructors to quickly find what matters (projects, resume, skills) while demonstrating clean front-end engineering.

1.2 Goals

- **Clarity:** Make it effortless to learn who I am, what I built, and how to contact me.
- **Proof of skill:** Demonstrate semantic HTML, modular ES6, responsive layouts, and tasteful interactions.
- **Performance & accessibility:** Load quickly on mobile and pass WCAG AA contrast.
- **Maintainability:** Simple file/folder structure; content easy to update.

1.3 Scope / Non-goals

In-scope:

Static pages (Home, About, Projects, Education, Resume, Team).

Visual interactions (particles, flip-book), light theming, downloadable resume.

1.5 Functional requirements

- **Navigation:** Header links (Home, About, Education, Projects, Team), theme toggle (T).
- **Hero (Home):** Headline + tagline; three feature boxes to Projects, Education, Resume/Experience.
- **Projects:** 3 split bands, each full-row link to GitHub, image hover/card zoom.
- **About:** Interactive book—closed cover → click to open; left/right page flips; close on first left page.
- **Resume:** Cards for Experience, Skills, Certifications; PDF download.
- **Education:** Degrees + highlights.
- **Footer:** Fixed height across pages; contact links.

1.6 Non-functional requirements

- Vanilla ES6 modules only; Bootstrap 5 utilities allowed.
- Organized folders: assets/css, assets/js, assets/images, assets/icons, assets/docs.
- ESLint passes with class rules; MIT License in repo.

- Meta tags: author, description, favicon/touch icon.
-

2) Target Users & Personas

Persona A — Aditya Rajendra Shanbhag - MS in Data Engineering

- **Goals:** Communicate data-pipeline skills (ETL/ELT, orchestration, lakehouse) with measurable impact.
- **Strengths:** Python/SQL, Airflow, Spark, cloud DWs; end-to-end pipelines.
- **Pain points:** Recruiters skim quickly; need tags/metrics visible at a glance.
- **Success:** Résumé + 2 DE projects discoverable in under a minute.

Persona B — Akash Shridhar Shetty- MS in Computer Science

- **Goals:** Show clean architecture, ES modules, and runnable demos.
- **Strengths:** JS/TS, systems thinking, testing, code quality.
- **Pain points:** Hard-to-find repos; unclear run instructions.
- **Success:** Demo/Repo links are obvious; clone & run is straightforward.

Persona C —Skandhan Madhusudana- MS in Computer Science

- **Goals:** Present AI/backend projects with API design and performance metrics.
- **Strengths:** Data structures, REST/GraphQL, ML prototyping.
- **Pain points:** Long write-ups; missing endpoint examples.
- **Success:** Each project shows endpoints + latency/accuracy at a glance.

Persona D —Siddharth Mohapatra, MS in Data Analytics

- **Goals:** Share dashboards with clear insights, data sources, and decisions enabled.
 - **Strengths:** SQL, visualization, data storytelling.
 - **Pain points:** Pretty charts without “so what”; hidden assumptions.
 - **Success:** 2–3 insights under each dashboard preview + dataset/source link.
-

3) User Stories-

a) Aditya — Surface DE stack & outcomes

Story.

As a **data-engineering recruiter** reviewing Aditya's work, I want to **see pipeline/infra tags** (e.g., Airflow, Spark, Delta Lake, Kafka) plus **1–2 outcome metrics** so that I can judge relevance in **under 30 seconds**.

b) Aditya — Quick résumé + case study

Story.

As a **recruiter**, I want a **persistent résumé link** and a **short case-study page** so I can download the résumé and skim context without hunting.

c) Akash — Clear demo & repo paths

Story.

As a **peer or recruiter**, I want obvious **“Demo”** and **“Repo”** entry points for Akash's projects so I can try or review the code with minimal friction.

d) Akash — Architecture clarity

Story.

As a **reviewer**, I want each project to include a **short architecture note** (modules/responsibilities) so I can understand the design quickly.

e) Skandhan — API discoverability

Story.

As a **backend-focused reviewer**, I want **example requests** for Skandhan's APIs so I can test endpoints immediately.

f) Skandhan — Performance snapshot

Story.

As a **hiring manager**, I want **latency/throughput or model metrics** visible so I can assess performance at a glance.

g) Siddharth — Insight-first dashboards

Story.

As a **stakeholder**, I want **2–3 insights under each dashboard thumbnail** so I immediately grasp the “so what”.

h) Siddharth — Shareable artifacts

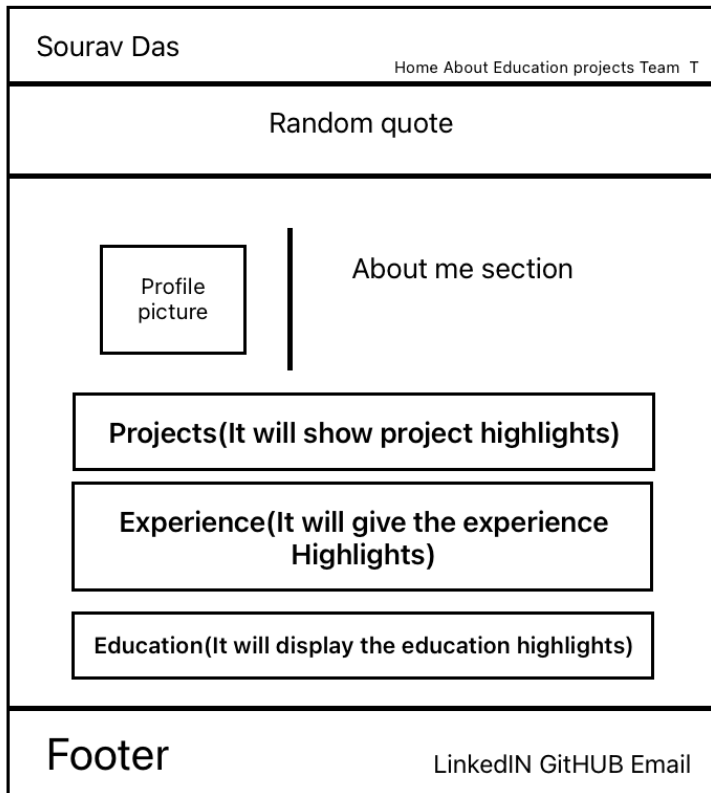
Story.

As a **teacher**, I want **downloadable slide/PDF exports** for dashboards so I can share them quickly with non-technical reviewers.

5) Interaction & Visual Design (Mockups)

Lo-fi wireframes describe structure, exact visuals implemented in CSS.

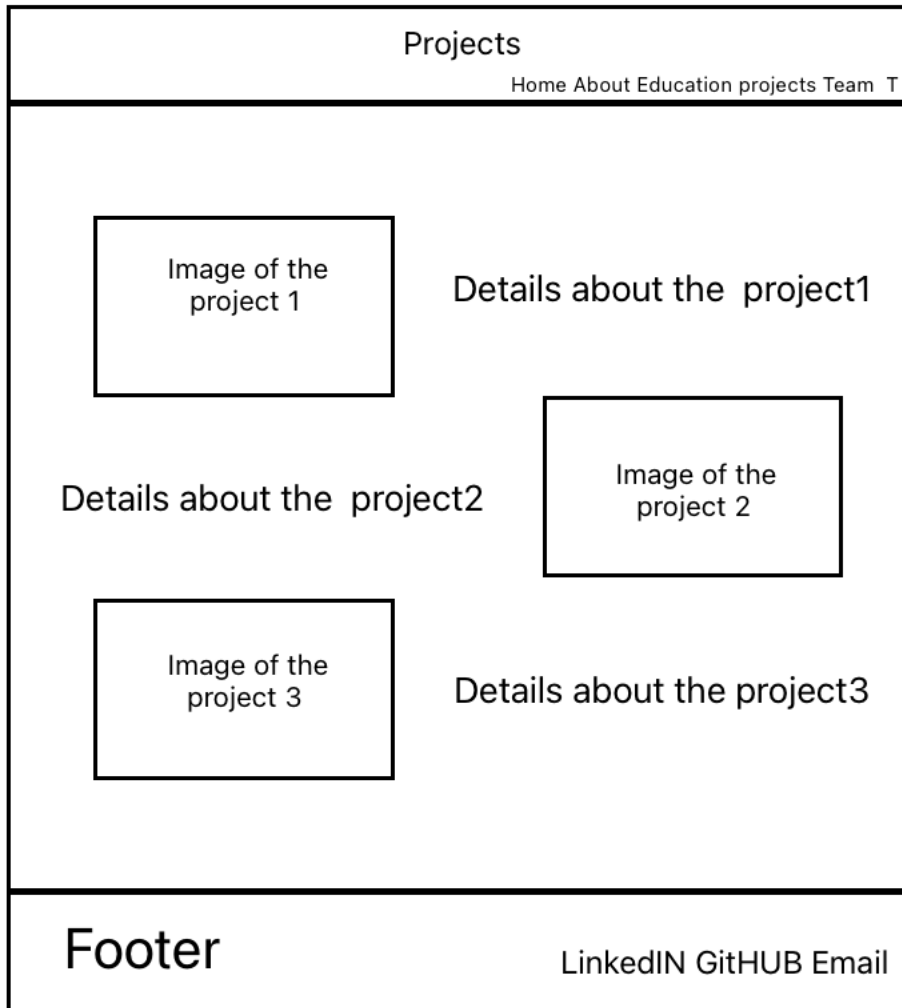
5.1 Homepage



Layout explanation-

The homepage wireframe prioritizes fast scanning and clear navigation. A slim header anchors the brand (“Sourav Das”) on the left and a right-aligned nav (Home, About, Education, Projects, Team) plus a circular ‘T’ theme toggle. The cover background below carries the value statement “Crafting Code, Creating Impact,” that adds personality without stealing focus. The “About me” area is a split layout profile photo on the left, summary text on the right so identity and context are visible above the fold. Three elevated “shadow boxes” act as primary CTAs: **Projects**, **Experience**, and **Education**. Each box shows 1–2 highlights and on hover gains a subtle scale/shadow, then routes to the detailed page on click. Spacing, typography, and alignment are intentionally simple so the content not decoration leads. A fixed-height footer anchors social links (LinkedIn, GitHub, Email) and keeps the page’s vertical rhythm consistent across screen sizes. On mobile, the CTAs stack vertically and the split “About” collapses to single column for readability and accessibility.

5.2 Projects (Alternating bands)



Layout explanation:-

This page opens with a slim “Projects” header and a **particles hero** for visual identity, then flows into three wide **bands** that alternate **image | text** and **text | image** to keep scanning energetic.

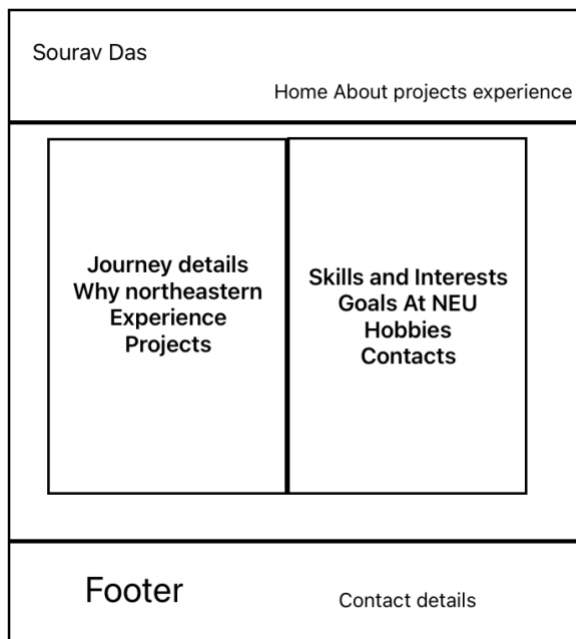
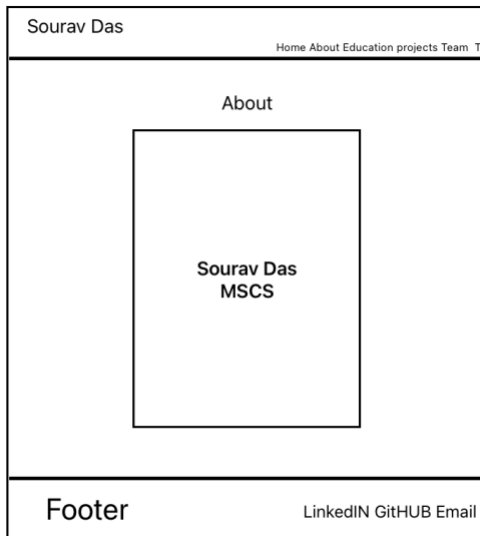
Band 1 gives the image approximately 60% width for emphasis; the text column includes **title + one-line lead + 2–3 bullets** and a clear “**View on GitHub →**” CTA (the entire band is a link).

Bands 2–3 flip the order (text | image, then image | text) while keeping identical spacing and typography so the page feels consistent. On hover, the **whole band** scales subtly with a soft shadow not just the image so the affordance is obvious.

Images are lazy-loaded, have descriptive **alt** text, and are framed to read well in both light/dark themes.

The layout uses a simple Bootstrap grid; on mobile each band **stacks vertically** with image first to preserve context. Keyboard focus is visible on the band link. A fixed-height footer anchors LinkedIn/GitHub/Email, keeping the vertical rhythm consistent across screen sizes.

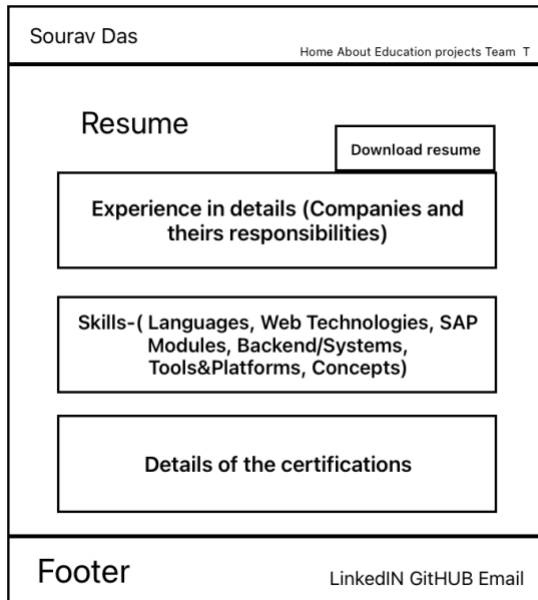
5.3 About (Interactive flipbook idea)



Layout explanation-

The About page uses a simple **book metaphor**. It starts with a centered **closed cover** showing my name and degree, clicking the cover opens to the first spread. Inside, content is split into two clear columns: the **left page** tells the story—*Journey, Why Northeastern, Experience, Projects*—while the **right page** summarizes *Skills & Interests, Goals at NEU, Hobbies, Contacts*. Text is short and scannable so readers can get to know me quickly. Navigation and footer match the rest of the site for consistency, and on mobile the pages **stack vertically** to stay easy to read.

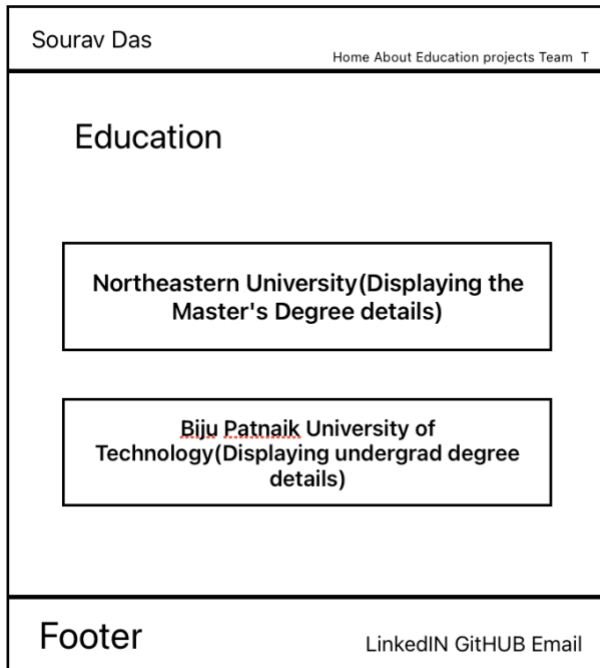
5.4 Resume



Layout explanation-

The Resume page keeps things simple and easy to scan. A clear title sits at the top with a prominent **“Download resume”** button. Content is grouped into three clean cards: **Experience** (companies and key responsibilities), **Skills** (languages, web tech, SAP modules, backend/systems, tools and concepts), and **Certifications** (Google credentials, etc.). Each card uses short bullets so readers can skim quickly. The layout is spacious and consistent with the rest of the site. A lightweight footer provides quick contact links to LinkedIn, GitHub, and Email.

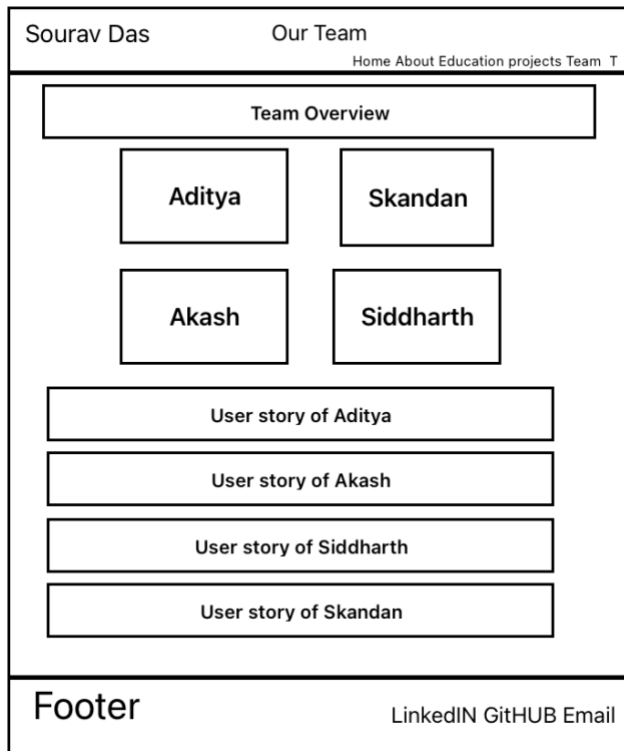
5.5 Education



Layout explanation-

The Education page presents academic history in a simple, easy-to-scan layout. A clear title sits at the top, followed by two cards in **reverse-chronological order: Northeastern University (MS in Computer Science)** first, then **Biju Patnaik University of Technology (B.Tech.)**. Each card lists the **degree, school, location, dates**, and a few short highlights (e.g., key coursework, awards, GPA). Spacing is generous so the information can be read quickly on both desktop and mobile. The visual style matches the rest of the site for consistency. A light footer finishes the page with LinkedIn, GitHub, and Email links.

5.6 User Personas



Layout explanation-

The User Personas page acts as a simple team hub. A **Team Overview** header introduces the group, followed by four equal cards in a 2×2 grid: **Aditya** (data engineering focus), **Akash** (CS/portfolio clarity), **Skandhan** (backend/API), and **Siddharth** (analytics/dashboards). Each card shows a name and role; clicking a card **scrolls to the matching user-story block** below, where goals, needs, and success criteria are listed in a few bullets. The layout keeps the personas short and comparable so reviewers can skim quickly. Visual style matches the rest of the site; on mobile the cards **stack vertically**. A light footer finishes the page with LinkedIn, GitHub, and Email links.

- End of the document -