

Jacob Miller – GitHub Curriculum

Section 1 – Foundation Review & Strengthening

****Objective:**** Strengthen your base in HTML, CSS, and JavaScript using your earlier repositories to ensure clean structure, accessibility, and deployment readiness.

****Repositories:**** TributePage, SurveyForm, ExampleLandingPage

****Milestones:****

- Refactor UI/UX for responsiveness and accessibility.
- Ensure semantic HTML and optimized assets.
- Write README improvements documenting lessons learned.
- Deploy final versions using GitHub Pages or Netlify.

Section 2 – Web & Full-Stack Web Applications

****Objective:**** Develop professional full-stack apps using Express.js, Node.js, databases, and modern front-end frameworks.

****Repositories:**** MBM-HandyMan-Services, Tucson-Permit-Assistant, Modern-Cuts-Site

****Milestones:****

- Build REST APIs for tenant services and maintenance workflows.
- Integrate database (PostgreSQL/MongoDB).
- Implement authentication (JWT, OAuth).
- Launch on Vercel or Render with production settings.

Section 3 – Generative Art & Creative Coding

****Objective:**** Apply your generative art experience to create dynamic visual systems inspired by your style and influences.

****Repositories:**** Sonoran-Force, Day-Zero, Nature-Pulse

****Milestones:****

- Use p5.js or Three.js for interactive visuals.
- Implement real-time controls and animation loops.
- Optimize for cross-device performance.
- Document the creative process and symbolism in the README.

Section 4 – Real-Estate Systems & Operations

****Objective:**** Build and refine real estate management platforms integrating leases, maintenance, and payment workflows.

****Repositories:**** Trailer Park Sales Model, Royal Shelter Society, MBM HandyMan Services, Tucson Permit Assistant

****Milestones:****

- Design DB schema for properties, tenants, leases, payments.
- Create automated PDF notice generator (rent pause, eviction).
- Implement tenant portal and admin dashboard.
- Add analytics and reporting features.

Section 5 – Security & Compliance

****Objective:**** Integrate robust security practices across all repositories, focusing on data protection, encryption, and compliance.

****Repositories:**** Neighborhood Watch, all production repos

****Milestones:****

- Implement MFA, RBAC, and encrypted storage for sensitive data.
- Enable GitHub secret scanning and Dependabot alerts.
- Conduct basic threat modeling and document incident response.
- Deploy HTTPS and secure headers.

Section 6 – Blockchain & Ledger Integration

****Objective:**** Extend selected apps with blockchain based functionality for ownership, transparency, or creative minting.

****Repositories:**** Desert Ledger, Day Zero

****Milestones:****

- Connect frontend with blockchain via Web3.js or Ethers.js.
- Record property or art transactions onchain.
- Create tokenized assets or NFTs tied to generative art.
- Ensure decentralized hosting and ledger verification.

Section 7 – Integration Capstone Project

****Objective:**** Combine all disciplines into a cohesive, deployable flagship project that reflects your personal brand and professional growth.

****Capstone Concept:**** "Secure Property Platform"

****Milestones:****

- Tenant portal with payments and maintenance tracking.
- Property dashboard for analytics.

- Blockchain ledger for property transactions.
- Full security implementation and audit documentation.
- Publish and promote through your social media network.

Section 8 – Portfolio & Professional Showcase

****Objective:**** Package and present your achievements for employers, collaborators, and followers.

****Repositories:**** Portfolio■Site, THE■BLOKK

****Milestones:****

- Unify branding (Montserrat font, signature color scheme).
- Write case studies for top 3 projects.
- Add video demos or GIF previews to READMEs.
- Create LinkedIn and social media posts documenting milestones.

Curriculum Completion Goal

Estimated duration: 16–20 weeks (flexible).

Completion of this curriculum results in:

- Fullstack + blockchain developer skills
- Real estate systems engineering capability
- Security compliance understanding
- Generative art mastery tied to web interactivity
- A cohesive portfolio showcasing your brand and versatility