**📅 120-Day Full-Stack + AI Developer Bootcamp**

**🟢 Phase 1: Foundations (Day 1–21)**

**Week 1 (Day 1–7) – JavaScript Fundamentals**

* **Day 1:** Setup VS Code, Node.js, Git. Learn var/let/const, data types.
* **Day 2:** Functions, arrays, objects.
* **Day 3:** Loops, conditionals, ES6 features.
* **Day 4:** Classes, this, arrow functions.
* **Day 5:** Async JS (Promises, async/await).
* **Day 6:** Practice 10 LeetCode Easy problems.
* **Day 7:** Mini project → Calculator with JS.

**Week 2 (Day 8–14) – Web Basics**

* **Day 8:** HTML structure, semantic tags.
* **Day 9:** CSS basics → selectors, box model.
* **Day 10:** Flexbox, Grid, responsive design.
* **Day 11:** JavaScript DOM manipulation.
* **Day 12:** Tailwind CSS basics.
* **Day 13:** Build responsive landing page.
* **Day 14:** Push to GitHub → host on GitHub Pages.

**Week 3 (Day 15–21) – Git & Portfolio**

* **Day 15:** Git basics → init, commit, branch.
* **Day 16:** GitHub collaboration → PRs, issues.
* **Day 17:** Markdown for docs.
* **Day 18:** Setup portfolio project.
* **Day 19–20:** Build portfolio (Tailwind + JS).
* **Day 21:** Deploy portfolio site.

✅ **Project 1:** Portfolio Website.

**🟢 Phase 2: Frontend Development (Day 22–42)**

**Week 4 (Day 22–28) – React Basics**

* **Day 22:** React setup, JSX, components.
* **Day 23:** Props, state, events.
* **Day 24:** Hooks → useState, useEffect.
* **Day 25:** Lists, keys, forms.
* **Day 26:** Fetch API data.
* **Day 27:** React Router.
* **Day 28:** Mini project → Weather App.

**Week 5 (Day 29–35) – Advanced React**

* **Day 29:** Redux Toolkit basics.
* **Day 30:** Zustand (lightweight state mgmt).
* **Day 31:** Material-UI / Shadcn UI.
* **Day 32:** Deploy React app on Vercel.
* **Day 33–34:** Build Blog App (React + Tailwind).
* **Day 35:** Optimize Blog App.

**Week 6 (Day 36–42) – Next.js + TypeScript**

* **Day 36:** TypeScript basics.
* **Day 37:** Next.js setup, pages, routing.
* **Day 38:** App Router, layouts.
* **Day 39:** SSR, ISR.
* **Day 40:** NextAuth authentication.
* **Day 41:** Build Blog App in Next.js.
* **Day 42:** Deploy Blog App.

✅ **Project 2:** Blog Platform (React + Next.js + TS).

**🟢 Phase 3: Backend Development (Day 43–63)**

**Week 7 (Day 43–49) – Node.js + Express**

* **Day 43:** Node.js intro, NPM.
* **Day 44:** Express basics → routes, middleware.
* **Day 45:** REST APIs (CRUD).
* **Day 46:** JWT authentication.
* **Day 47:** Error handling, logging.
* **Day 48:** Postman testing.
* **Day 49:** Mini project → Notes API.

**Week 8 (Day 50–56) – Databases**

* **Day 50:** SQL basics (PostgreSQL).
* **Day 51:** CRUD with Postgres.
* **Day 52:** MongoDB intro + Mongoose.
* **Day 53:** Prisma ORM basics.
* **Day 54–55:** Build Task Manager API (CRUD + JWT + DB).
* **Day 56:** Deploy API (Render/Heroku).

**Week 9 (Day 57–63) – GraphQL + Realtime**

* **Day 57:** GraphQL basics.
* **Day 58:** Apollo Server setup.
* **Day 59:** Queries & mutations.
* **Day 60:** Subscriptions (realtime).
* **Day 61:** Socket.IO intro.
* **Day 62–63:** Chat API with GraphQL + Socket.IO.

✅ **Project 3:** Task Manager API (JWT + Prisma + Postgres).

**🟢 Phase 4: AI Integration (Day 64–84)**

**Week 10 (Day 64–70) – Python + AI Basics**

* **Day 64–65:** Python crash course.
* **Day 66:** NumPy basics.
* **Day 67:** Pandas basics.
* **Day 68:** scikit-learn intro.
* **Day 69:** Train simple ML model.
* **Day 70:** Expose model via Flask API.

**Week 11 (Day 71–77) – AI APIs**

* **Day 71:** OpenAI API basics (text completion).
* **Day 72:** ChatGPT integration.
* **Day 73:** DALL·E image generation.
* **Day 74:** Hugging Face transformers.
* **Day 75:** Sentiment Analysis with HF.
* **Day 76:** AI API + Next.js frontend.
* **Day 77:** Deploy AI API app.

**Week 12 (Day 78–84) – LangChain.js + Pinecone**

* **Day 78:** LangChain basics.
* **Day 79:** Prompt templates, chains.
* **Day 80:** Retrieval-Augmented Generation (RAG).
* **Day 81:** Pinecone vector DB setup.
* **Day 82–83:** AI Chatbot with memory.
* **Day 84:** Deploy AI Chatbot.

✅ **Project 4:** AI Chatbot (Next.js + OpenAI + LangChain + Pinecone).

**🟢 Phase 5: DevOps + Cloud (Day 85–105)**

**Week 13 (Day 85–91) – DevOps Basics**

* **Day 85:** GitHub Actions (CI/CD).
* **Day 86:** Docker basics.
* **Day 87:** Dockerfiles, images, containers.
* **Day 88:** Docker Compose.
* **Day 89–90:** Containerize API project.
* **Day 91:** Push Docker image to DockerHub.

**Week 14 (Day 92–98) – AWS Basics**

* **Day 92:** AWS EC2 basics.
* **Day 93:** Deploy Node app on EC2.
* **Day 94:** AWS S3 for file storage.
* **Day 95:** AWS RDS (Postgres).
* **Day 96:** AWS IAM (users, roles).
* **Day 97–98:** Host full-stack app on AWS.

**Week 15 (Day 99–105) – Scalability & Security**

* **Day 99:** Redis caching.
* **Day 100:** API security best practices.
* **Day 101:** Logging & monitoring basics.
* **Day 102–103:** Add Redis to AI Chatbot project.
* **Day 104–105:** Optimize & redeploy AI app.

✅ **Project 5:** AI SaaS App (Docker + AWS + RDS + S3).

**🟢 Phase 6: Capstone + Career Prep (Day 106–120)**

**Week 16 (Day 106–112) – Capstone Project**

* **Day 106–111:** Build **AI SaaS App**:
  + Auth (NextAuth)
  + Dashboard (Next.js + Tailwind)
  + AI integration (LangChain + OpenAI + Pinecone)
  + DB (Prisma + PostgreSQL)
  + Deployment (Docker + AWS).
* **Day 112:** Final testing + deployment.

**Week 16 (Day 113–120) – Career Prep**

* **Day 113–114:** Polish portfolio website with all projects.
* **Day 115–116:** Resume writing (highlight full-stack + AI).
* **Day 117–118:** Mock interviews (LeetCode easy-medium).
* **Day 119:** LinkedIn + GitHub profile optimization.
* **Day 120:** Apply to jobs 🚀

✅ **Final Project (Capstone):** AI-Powered SaaS App.

**🎯 By Day 120 You’ll Have:**

* **6 solid projects** (Frontend, Backend, AI, DevOps).
* Skills in **React, Next.js, Node.js, Prisma, Postgres, AI APIs, LangChain.js, Pinecone, Docker, AWS**.
* Resume + portfolio ready.
* Job-ready for **6–15 LPA roles (India)** or **$80k+ (global)**.

**Resources**

**📚 Daily Learning Sources**

**🟢 Phase 1: Foundations (Day 1–21)**

**JavaScript (Days 1–7):**

* [**FreeCodeCamp JS Course (8 hrs)**](https://www.youtube.com/watch?v=jS4aFq5-91M)
* **MDN JS Docs**

**HTML + CSS (Days 8–14):**

* [**HTML & CSS Crash Course**](https://www.youtube.com/watch?v=G3e-cpL7ofc)
* [**Tailwind CSS Crash Course**](https://www.youtube.com/watch?v=dFgzHOX84xQ)

**Git + Portfolio (Days 15–21):**

* [**Git & GitHub Crash Course**](https://www.youtube.com/watch?v=RGOj5yH7evk)
* **Deploy with GitHub Pages**

**🟢 Phase 2: Frontend (Day 22–42)**

**React (Days 22–28):**

* [**React Full Course (10 hrs)**](https://www.youtube.com/watch?v=bMknfKXIFA8)
* **React Docs**

**Advanced React (Days 29–35):**

* [**Redux Toolkit Tutorial**](https://www.youtube.com/watch?v=9zySeP5vH9c)
* **Shadcn UI Docs**

**Next.js + TS (Days 36–42):**

* [**Next.js 13 Crash Course**](https://www.youtube.com/watch?v=NgayZAuTgwM)
* [**TypeScript Crash Course**](https://www.youtube.com/watch?v=gp5H0Vw39yw)
* **NextAuth Docs**

**🟢 Phase 3: Backend (Day 43–63)**

**Node.js + Express (Days 43–49):**

* [**Node.js Crash Course**](https://www.youtube.com/watch?v=f2EqECiTBL8)
* **Express Docs**

**Databases (Days 50–56):**

* [**PostgreSQL Full Course**](https://www.youtube.com/watch?v=qw--VYLpxG4)
* [**MongoDB Crash Course**](https://www.youtube.com/watch?v=ofme2o29ngU)
* **Prisma Docs**

**GraphQL + Realtime (Days 57–63):**

* [**GraphQL Crash Course**](https://www.youtube.com/watch?v=ZQL7tL2S0oQ)
* [**Socket.IO Crash Course**](https://www.youtube.com/watch?v=1BfCnjr_Vjg)

**🟢 Phase 4: AI Integration (Day 64–84)**

**Python + ML (Days 64–70):**

* [**Python Full Course (4 hrs)**](https://www.youtube.com/watch?v=rfscVS0vtbw)
* [**NumPy & Pandas Crash Course**](https://www.youtube.com/watch?v=vmEHCJofslg)
* **scikit-learn Docs**

**AI APIs (Days 71–77):**

* [**OpenAI API Docs**](https://platform.openai.com/docs/)
* **Hugging Face Transformers**

**LangChain.js + Pinecone (Days 78–84):**

* **LangChain.js Docs**
* **Pinecone Docs**
* [**LangChain + Pinecone Tutorial**](https://www.youtube.com/watch?v=dXxQ0LR-3Hg)

**🟢 Phase 5: DevOps + Cloud (Day 85–105)**

**DevOps (Days 85–91):**

* [**GitHub Actions Crash Course**](https://www.youtube.com/watch?v=R8_veQiYBjI)
* [**Docker Full Course**](https://www.youtube.com/watch?v=3c-iBn73dDE)

**AWS (Days 92–98):**

* [**AWS EC2 Full Tutorial**](https://www.youtube.com/watch?v=Tg2krHXHzBc)
* [**AWS S3 Tutorial**](https://www.youtube.com/watch?v=5e6bn4qx6no)
* [**AWS RDS Tutorial**](https://www.youtube.com/watch?v=JeD54y6YqE8)

**Scaling + Security (Days 99–105):**

* [**Redis Crash Course**](https://www.youtube.com/watch?v=jgpVdJB2sKQ)
* [**API Security Best Practices**](https://www.youtube.com/watch?v=7nafaH9SddU)

**🟢 Phase 6: Capstone + Career Prep (Day 106–120)**

**Capstone Project:**

* [**Next.js SaaS Boilerplate**](https://www.youtube.com/watch?v=H2Tzqe8JxCw)
* [**Deploy Next.js on AWS**](https://www.youtube.com/watch?v=5aYpkL7G4Jw)

**Career Prep:**

* [**DSA for Beginners**](https://www.youtube.com/watch?v=8hly31xKli0)
* [**How to Write a Tech Resume**](https://www.youtube.com/watch?v=ZQbZK7mS4fI)
* [**System Design Basics**](https://www.youtube.com/watch?v=EjBWgV4d0U8)

**🎯 How to Use This Plan**

1. **Follow daily tasks → spend 3–5 hrs/day.**
2. **Watch videos (hands-on) first → then read docs for depth.**
3. **Build small projects weekly → push to GitHub.**
4. **End of each phase → deploy a real project.**
5. **Final 2 weeks → polish portfolio + apply to jobs.**