

Edoardo Galli

Computer Science Undergraduate

Education

- 2021–2026 **B.Sc. Information Science for Management**, *University of Bologna*
GPA: 28/30 – A hybrid Computer Science curriculum engaging with both software engineering and corporate management strategies.
- **Relevant Coursework:** Software Engineering, Operating Systems, Algorithms & Data Structures, Information Systems, Web Technologies, Corporate Finance.

Project Experience

- TypeScript, React **Real-Time Collaborative Editor (sweng-notes)**, *University of Bologna*
github.com/edoski/sweng-notes
- Engineered a type-safe backend using **Convex**, using a custom **middleware factory** to inject RBAC policies into 50+ API endpoints.
 - Optimized React rendering performance by splitting global state into multiple distinct **Context scopes**, preventing re-render cascades.
 - Integrated **Liveblocks** and **Y.js** to synchronize ephemeral cursor presence and resolve concurrent document edits via CRDTs.
- Java, Concurrency **Multithreaded Client-Server Architecture (pubsub)**, *University of Bologna*
github.com/edoski/pubsub
- Built a raw TCP server using **CachedThreadPool** to dynamically scale worker threads based on client load.
 - Enforced thread safety using **ConcurrentHashMap** for state management and atomic **synchronized blocks** for message snapshotting.
 - Designed a custom Application Layer Protocol featuring an admin "Inspect Mode" that utilizes volatile flags to suspend client command processing in real-time.
- PHP, SQL, Mongo **Crowdfunding Platform (bostarter)**, *University of Bologna*
github.com/edoski/bostarter
- Architected a **Hybrid Persistence Layer** using **MySQL** (Stored Procedures) for transactional data and **MongoDB** for immutable audit logging.
 - Implemented a custom **EventPipeline** class to abstract input validation, execution flow, and error handling across action scripts.
 - Hardened security by strictly separating View logic from Business logic and enforcing **PDO** parameter binding.
- Next.js, Tailwind **Personal Developer Portfolio**, *Personal Project*
edoski.com
- Developed a high-performance static site using **Next.js App Router** and React Server Components to minimize client-side hydration costs.
 - Engineered custom interactive UI components using **Framer Motion** and Tailwind CSS.
 - Integrated a Vercel CI/CD pipeline to automate production deployments.

Technical Skills

- Languages Java, TypeScript, SQL, PHP, HTML5/CSS3
- Frameworks Next.js, React, Tailwind CSS, JavaFX, Bootstrap
- Tools & DB Git/GitHub, MySQL, MongoDB, Convex, Docker, Linux/Bash
- Core Concepts OOP, Serverless Architecture, REST, Multithreading, MVC, CI/CD