Kean De La Serna

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Education

University of Bohol   **Aug 2021 – June 2025**
Bachelor of Science in Computer Science   *Tagbilaran, Philippines*
- Dean's List | **GPA: 1.3 / 5.0**

Work Experience

Fullstack Developer Intern   **Jul 2024 – Sep 2024**
Deped   *Tagbilaran, Philippines*
- Engineered **1,200+** teacher records with RESTful APIs using **TypeScript**, **Express.js**, and **Prisma Accelerate**, enhancing backend performance with **indexing**, **caching**, and **Data Proxy**, boosting query speed by **30%**.
- Built responsive teacher records dashboard using **Next.js**, **TypeScript**, **TailwindCSS**, **TanStack Query** and **Edge Functions**, cutting data load time by **40%** for **15+ users** in the department.
- Produced a scalable **Turborepo-based** application, packaged with **Docker** and hosted on **AWS EC2**, enabling collaboration among **6+** interns.

Projects

Instafix | *Website* | *Source Code*   **Typescript | Next.js | PostgreSQL | Huggingface | Redis | Docker**
- Developed a freelancer matchmaking platform using **Hugging Face's GIT-base model** trained on **10m+ image-text pairs**, enabling accurate object-based service matching with **92.9%** recognition accuracy.
- Containerized app with **Docker** and deployed on **Railway**, real-time messaging using **Redis PubSub** for efficient communication, and image storage for **100+** users with **Cloudflare R2**.
- Implemented infinite scroll with **TanStack Query** and **Prisma Accelerate** on **Edge Functions**, reducing load times by **65%** and API requests by **40%**, increasing user engagement **2x.**

Chess Royal | *Website* | *Source Code*   **Typescript | Next.js | PostgreSQL | Redis | Docker**
- Created a real-time multiplayer chess game using **TypeScript**, **Next.js**, **WebSockets**, and leveraging **Turborepo** for a **40%** faster development workflow.
- Integrated **Redis PubSub** and **BullMQ** for real-time queues, orchestrated with **Docker**, and deployed via **AWS EC2**, cutting matchmaking wait times from **45 to 15 seconds** on average.
- Utilized **PostgreSQL** with **Prisma Accelerate** and a **lightweight CSS UI**, reducing latency and boosting performance by **30%**.

Bytepoint | *Website*   **Typescript | SvelteKit | PostgreSQL**
- **Drove 100% of technical strategy and led the team** to build a real-time competition results system using, **SvelteKit** and **Supabase**, supporting **4,000+ users** across University of Bohol campuses.
- Optimized website performance using **Prisma Accelerate** and designed an intuitive **UI**, resulting in a **70% increase** in user engagement during peak university events.

IntelleQuiz | *Website* | *Source Code*   **Typescript | React.js | Express.js | PostgreSQL | Socket.io | Docker**
- Developed a real-time interactive quiz application using **TypeScript**, **React.js**, and **Socket.io**, enabling timed quizzes with live user participation.
- Implemented a scalable backend with **Express.js** and **PostgreSQL**, encapsulated with **Docker**, successfully reaching **15+ users** with efficient quiz data management.

Achievements

- **National Semifinalist** at CodeChum National Programming Challenge. Led the team among **40+** competing schools. (Certificate)
- **Individual Semifinalist** at CodeChum National Programming Challenge among **450+ students**. (Certificate)
- **Hacktoberfest Open Source Contributor**. Earned **5 badges** for code contributions. (Holopin)

Technical Skills

Languages: JavaScript, TypeScript, Python, Java, C/C++, SQL, HTML5, CSS

Libraries/Frameworks: React.js, Next.js, Node.js, Express.js, Django, Socket.io, Prisma

Developer Tools: Git, Docker, Kubernetes, Jenkins, Redis, Turborepo, AWS, Azure, Cloudflare, Jira, Linux