
PROJECTS

- **DuckGPT** — *A generative AI simulate the response of a rubber duck*
 - Stack:** React, Typescript
 - Designed and developed a generative AI that listens and responds exactly like a rubber duck would.
 - Implemented logic for the rubber duck AI from scratch.
 - Built a responsive UI using **React** and **Typescript**.
- **Chexx** — *A online multiplayer Chess variant game*
 - Stack:** .NET Core, React, C#, Typescript, SignalR, Redis, PostgreSQL
 - Designed and developed an online multiplayer Gliński's hexagonal chess game with an ELO system.
 - Built front-end using **React** and **Typescript**. Built back-end using **.NET Core** Web API using unit of work, repository, and decorator pattern.
 - Implemented logic for the hexagonal chess game from scratch using OOP principles.
 - Integrated **Redis** as a second database for caching, real time leaderboard and ELO retrieval.
 - Integrated **SignalR** for real time communication.
- **Ploop** — *A dynamic and interactive social art platform*
 - Stack:** Node.Js, React, Typescript, PostgreSQL, Redux, GraphQL, RabbitMQ, Docker, AWS S3, Cloudflare
 - Designed and developed a full stack app that allows users to create drawings and then watch as their creations transform into a time-lapse video.
 - Built front-end using **React** and **Typescript**. Features built: a drawing app on a **HTML** canvas with pen, shape, bucket, undo, and redo tools, infinite scroll, lazy loading, multi-step form, modal as route, etc.
 - Integrated **Redux RTK Query** for managing states, API calls.
 - Built back-end using **Node.Js** and **Express.Js**.
 - Implemented a **Microservices Architecture** with 8 **REST API** services, interacting through a message queue with **RabbitMQ** for a robust communication.
 - Implemented an API Gateway service using **Apollo GraphQL** and **REST DataSource** for efficient data aggregation. Implemented real-time communication for chat and comment feature using **GraphQL Subscription**.
 - Integrated **Jwt Tokens** with refresh token rotation strategy for user authentication and authorization.
 - Designed and integrated **PostgreSQL** as database and **Cloudflare** with **AWS S3** as cloud storage.
 - Integrated **Docker** for ease of development and scalable deployment.
- **Duckpile** — *An inventory management app*
 - Stack:** Node.Js, React, Javascript, PostgreSQL, Redux
 - Designed and developed an internal full stack app that help with inventory management for VCAL TV.
 - Built front-end using **React** and **Javascript**. Built back-end using **Node.Js** and **Express.Js**.
 - Saved over **\$1000** in labor cost and an efficiency increase of **50%** in preparation and processing time during a one month trial run period.
- **Personal Portfolio** —
 - Stack:** React, Typescript
 - Built a responsive website using **React** and **Typescript** for a personal portfolio.

EDUCATION

- **University of California, Berkeley** — *Berkeley, CA*
 - Physics - 3.7 GPA
 - Aug. 2021 – May. 2022
- **Orange Coast College** — *Costa Mesa, CA*
 - AS Physics - 3.9 GPA
 - Aug. 2018 – May. 2021

PROGRAMMING SKILLS

- **Languages:** Javascript/Typescript, Python, C#, SQL, NoSQL
- **Technologies/Frameworks:** Node.Js, Express.Js, ASP.NET Core, EF Core, SignalR, React, Redux, Redis, RTK Query, GraphQL, RabbitMQ, Docker, REST API, Git
- **Databases:** PostgreSQL, Cloudflare, AWS S3, MongoDB