Pascalis Pandey

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EDUCATION

Nanyang Technological University, Singapore *Aug. 2022 - Jun. 2026*

Bachelor of Engineering in Computer Science (Honours: Highest Distinction) CGPA: 4.74/5.0
ASEAN Undergraduate Scholarship

EXPERIENCE

Full Stack Software Engineer Intern *Jul. 2023 - Aug. 2023*

Merkle Innovation, Jakarta Remote

- Developed a cutting-edge bar management system, elevating efficiency and customer satisfaction, through an interactive booking and table layout management using **KonvaJS**, customer reward system, and voucher redeems.
- Engineered and seamlessly integrated new endpoints with **ExpressJS** and **Sequelize**, whilst ensuring backward compatibility with existing features.
- Created a dynamic frontend using **Vite** with **React**, **Typescript**, **TailwindCSS**, **Recoil**, and **TanStack Query**.
- Pioneered the establishment of a robust **authentication and permission system** leveraging JWT and server-side validation, enhancing data security and reducing unauthorized accesses.
- Collaborated with project managers, QA team, and mobile team to ensure software quality and timely delivery.
- Actively participated in **Scrum** activities including sprint retrospectives and daily stand-ups.

Full Stack Software Engineer Intern *Dec. 2022 - Jun. 2023*

Ilmulia, Jakarta Remote

- Spearheaded the creation of a cutting-edge real-time stock trading simulator featuring a user-friendly dashboard, dynamic stock viewer, and engaging contests with a dynamic leaderboard and ranking system.
- Leveraged the power of **ExpressJS**, **Apollo** as the GraphQL server, and **GraphQL Modules** to craft a robust and modular backend architecture, enhancing maintainability and scalability.
- Demonstrated expertise in **PostgreSQL** and database design, utilizing ERDs and **Prisma** schemas to optimize data storage and retrieval.
- Built performant cron jobs using **Redis**, **BullMQ** and **SQL**, reducing time to update player rankings by over 90%.
- Crafted a sleek and intuitive frontend using **NextJS**, **React**, **Stitches CSS**, and **ChartJS**, delivering comprehensive stock and portfolio visualizations that empowered users to make better and more informed decisions.
- Seamlessly integrated **GraphQL** queries with **Redux** to enable automatic Server-Side Rendering (SSR) for every query, resulting in optimized SEO performance and enhanced page load speeds.

PERSONAL PROJECTS

TikTok E-Commerce

Fullstack TikTok E-Commerce web app

- Deployed Website: Vercel Website | GitHub Repository: Tiktok-Hackathon
- Built a fullstack e-commerce site for TikTok hackathon 2023, with wishlist, follow, comments, and upload feature.
- Built the app using **NextJS 13** leveraging **React Server Components**, deployed to **Vercel** and **Railway** for the DB.
- Used **Prisma** to query a **PostgreSQL** database and **JWT** authentication to ensure routes are properly protected.
- Implemented infinite scrolling pagination to ensure that only necessary data is queried to reduce client load.
- Implemented a fast and responsive search bar using **TanStack Query** and ensuring that queries are properly cached.
- Technology Used: NextJS, Prisma, PostgreSQL, Railway, React, Tailwind, UploadThing, TanStack Query

Gitjub

Fullstack Github clone using T3 stack, AWS EC2, and Planetscale

- Self hosted a git server on an **AWS EC2** instance and an **ExpressJS** app to interface with it.
- Implemented **Gitolite** as a control management system to manage permissions for connections through SSH and **Nodegit** to interface with the git server for API calls through the **ExpressJS** app.
- Built the web app using **NextJS** with authentication using **Clerk** and support features like repository viewing, security checks for private repositories, adding collaborators, and repository and user search.
- Hosted a **SQLite** database on **Planetscale** with **Prisma** to query data and run migrations.
- Technology Used: AWS EC2, Git, Gitolite, NodeGit, NextJS, Prisma, SQLite, Planetscale, Clerk, React, Tailwind

EXTRACURRICULAR ACTIVITIES

NTU Indonesian Students Association (PINTU) Technology Committee *Sep. 2022 - Aug. 2023*

- Led, organized, and presented on a web development workshop and demo for year 1 students.
- Built a full stack shop web app where students can buy and sell items using **React**, **Redux**, **Django**, and **Docker**.

TECHNICAL SKILLS

Programming Languages: C, Python, JavaScript, TypeScript, SQL
Frontend Technologies: React, Tailwind, Redux, Recoil, TanStack Query, KonvaJS, ChartJS, Headless UI
Backend Technologies: NextJS, ExpressJS, GraphQL, tRPC, Prisma, Sequelize, BullMQ, PostgresQL, Redis
DevOps and Deployment: Git, AWS EC2, Docker, Planetscale, Railway