Nutchanon Taechasuk / Quatton

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Education

University of Tokyo, Tokyo, Japan

2022 Mar - 2026 Mar (Expected)

3rd Year Undergraduate Student, Department of Information Science, Faculty of Science (MEXT Scholarship)

Actively Used Technologies & Languages

- Programming Languages: TypeScript, JavaScript, Rust, Python, Dart (Flutter), C++, OCaml
- (Actively Used) Technologies: Next.js, Nuxt, Vue.js, React, TailwindCSS, Bun, Node.js, PostgreSQL
- Languages: English (Business), Japanese (Business), Thai (Native)

Work Experience

Akari Inc., Japan

2025 Mar - Present (Contract Renewation Period: 2025 May)

Software Engineer Intern (Next.js, Three.js, Chakra UI, PostgreSQL, S3, StepFunctions, Cognito, FastAPI, OpenAPI)

- Visualized Gaussian Splatting & 3D point clouds with Three.js.
- Introduced TanStack Query to cut API calls by 90% via caching, and to improve performance by render-on-fetch.
- Boosted CI/CD efficiency by caching artifacts (lint: $6 \to 2$ min; OpenAPI client generation: $27 \to 2$ sec).
- Removed over 90GB of dangling files from S3 by implementing a lifecycle policy in Terraform.

Mantra Inc., Japan 2024 Aug - 2024 Sep

Web Engineer Intern (Vue.js, GraphQL, Django, MySQL) [Final Presentation]

- Developed a role management feature reducing onboarding from $O(N^2)$ to O(N).
- Refactored data fetching with GraphQL composables for improved caching and error handling.
- Added a security archive for translated chapters to prevent unauthorized edits.
- Documented a style guide and best practices for maintainability.
- Fixed translation pipeline bugs by updating server dependencies.

Recent Projects

scrb - Next-gen Scribblenauts clone built with Bevy and TripoSR [GitHub]

 $2024~{\rm Apr}$ - Present

- Optimized the text-to-3d generation pipeline to generate game assets in sub-30 seconds (locally on Apple M3)
- Support over 30000+ color names and arbitrary size modifiers using a dynamically loaded Trie tree

qcpu - Custom CPU Simulator & Assembler

2024 Oct - 2025 Mar

A Rust-based project that implements a specialized CPU simulator and assembler for a custom ISA. [GitHub]

- Implemented a cycle-accurate simulation with lower than 0.03% execution time prediction error
- Optimized the simulator to achieve over 300 MIPS with statistics collection and 500 MIPS without

Memoiz – Search Engine for Personal Notes [Lablab.ai]

2023 Apr

Lablab.ai Build your AI Startup Hackathon. Episode 2: Winner

(Next.js, React, TypeScript, Tailwind CSS, Prisma, MySQL, Redis, Cohere, Vercel, tRPC)

- Led a team of two to develop a full-stack web application for organizing and searching personal notes in 7 days
- Explored cutting-edge AI technologies through implementing vector-based semantic search via Redis and Cohere
- Standarized data querying, validation, and mutation using end-to-end type-safe APIs