

Bijon Setyawan Raya

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[LinkedIn](#) · [GitHub](#)

New Taipei City, Taiwan

TECHNICAL SKILLS

Programming: C/C++, Python, JavaScript/TypeScript.

Web Development: Django, FastAPI, Next.js.

Cloud & Containers: Docker, Kubernetes.

Deep Learning & Machine Learning: Keras, PyTorch, TensorFlow, Numpy, Pandas, Scipy, Scikit Learn.

Big Data & Distributed Computing: Horovod, PySpark.

Search & Database: ElasticSearch, MySQL, SQLite.

Utilities: Git, Linux/Unix.

EXPERIENCE

Intermediate Fullstack Developer

October 2022 – March 2024

Faria Education Group

Taipei, Taiwan

- Optimized file export processes, achieving a significant reduction in export time by 98.33%.
- Sped up user feed search processes using ElasticSearch and efficient SQL queries.
- Enhanced search precision and user navigation within user feeds by expanding options in the feed search navigation modal, significantly improving user experience and content discovery.
- Consistently managed and ensured data integrity across all tables within the MySQL database.
- Refactored the jQuery codebase and converted some into Stimulus.js and Vue.js.

Graduate Research Scientist

February 2021 – January 2023

National Tsing Hua University

Hsinchu, Taiwan

- Designed and developed Schedulearn, a Deep Learning scheduling system that dynamically scales to optimize training resource utilization using FastAPI.
- Improved user experience for technical and non-technical users by developing a system dashboard using Next.js.
- Reduced overall makespan and turnaround time by 10-50%, code base size by 50% and requirement utilization by 70%.

Teaching Assistant

Sep. 2020 – January 2023

National Tsing Hua University

Hsinchu, Taiwan

- Linear Algebra
- Introduction to C and C++

EDUCATION

National Tsing Hua University

Hsinchu, Taiwan

Master of Science in Computer Science

Feb. 2021 – Jan. 2023

National Tsing Hua University

Hsinchu, Taiwan

Bachelor of Science in Computer Science

Sep. 2015 – Jan. 2021

PROJECTS

Personalized Retrieval-Augmented Generation System | *Gradio, Llama 3, Llama Index, Ollama, and Python.*

- Created a personalized, local RAG that refines my resume based on hundreds of analyzed job descriptions, providing insights on the current job market.
- Designed and implemented an intuitive UI utilizing Gradio, empowering users to input queries and exert control over response retrieval and document access.

Image Search Engine | *FastAPI, Jinja, Python, PyTorch, and SQLite.*

- Streamlines uploading image processes, applying advanced computer vision techniques (ResNet18) to identify and retrieve similar images based on visual features.
- Designed and implemented a simple UI using FastAPI and Jinja, allowing users to upload images and see similar uploaded images.

Music Recommendation System | *Numpy, Pandas, Python, and scikit-learn.*

- Utilizing Spotify's vast music library, extracted and processed audio features from over 2000 songs across various genres, then applied Non-negative Matrix Factorization to recommend personalized song selections.

AI Coding Assistant | *Llama 3, Ollama, and Python WASM.*

- Allows users to program and run Python code directly in their browser, with the added benefit of getting assistance from a LLM running in the background to help with coding tasks, debugging, and more.

Personal Website & Klang | *Contentlayer, Next, and Tailwind CSS.*

Schedulearn | *Docker, FastAPI, Horovod, Python, and SQLite.*