# IKUMA NAGAHARA

Japanese Software Engineer

### PROFESSIONAL EMPLOYMENT EXPERIENCE

Pixel Software 株式会社 - Japan, Ehime

2021.04 - 2023.06

Software Engineer

Product Solutions Division 1

- 1. Industrial and Public Plant Monitoring System Development
  - Developed a new industrial gateway system by using Golang and replaced the existing VB and C legacy systems, improving maintainability and scalability.
  - Optimized Golang's concurrency features to handle thousands of industrial sensor tags, increasing data throughput over 40% by benchmark. Enhanced data stability, and reducing processing time.
  - o Programmed control software in C# for System-Operator to monitor Industrial data.
- 2. Backend Development with REST API
  - Designed and maintained internal management systems using Python (Django) to support employee information management and project tracking.
- 3. Collaborative Development and Quality Assurance
  - o Collaborated within a 7-member team to plan, design, and deliver software functional specifications.
  - Developed and executed test plans to ensure functionality, performance, and security.
- 4. Documentation and Reporting
  - o Created detailed technical documentation, including system architecture and API specifications.
  - Prepared reports and presentations to communicate project progress and solutions to stakeholders.

### **Education Background**

East China Normal University - Master of Software Engineering; GPA 3.1 / 4.0

2023.9 - 2026.6

Shanghai International Studies University - Bachelor of Arts; GPA 3.4 / 4.0

2019.9 - 2021.6

## Master Degree Research Project: Machine Learning

### Building a Flight Ticket Sales Forecasting Model Using Machine Learning

- Analyze the factors influencing prices based on historical airline ticket price data, and examine which factors affect airline ticket prices
- Compare the predictive accuracy of multiple machine learning algorithms (e.g., LightGBM, GBDT, SARIMA)
  to identify the optimal method
- Researching a unique machine learning algorithm aimed at predicting the optimal airline ticket prices

#### LANGUAGES AND TECHNOLOGIES

Programming Languages: Golang Python C# JavaScript SQL

■ Frameworks: Gin Django .NET

■ Tools: Git GitHub Docker

Operating Systems: Windows Linux

Other Technologies: TCP/IP Machine Learning JQuery

### Languages

- Japanese (Native)
- English (Professional working proficiency)
- Chinese (Professional working proficiency)