Valikhujaev Yakhyokhuja

AI Research Engineer

EXPERIENCE

Divus Co, Ltd | 2020.11.18 - present

AI Research Engineer

- ANPR (Automatic Number Plate Recognition):
  - Object detection (YOLOv5s-l), Image Generation (Generating synthetic number plate with YOLO format labels)
  - Building/Training/Inference. Deployment on Mobile/WEB (Rest APIs)
  - Integrating multi-stage models for Deployment
- Car Damage detection:
  - Implementation of YOLOv5s for car damage detection.
  - Deployment on Android OS.
- OCR
  - STD (Scene Text Detection): detectron2, EAST, CRAFT, TextFuseNet
  - STR (Scene Text Recognition): STN, BiLSTM, Attention, CTC based methods
- Shadow Removal
  - GANs, CycleGAN, MaskShadowGAN and etc.

Gachon University | 2019.04.01 - 2020.01.12

Teaching Assistant

Teaching middle school students (5 students). Smart City project

- **C++/Python** fundamentals to code write code in **Arduino Uno** and **Raspberry Pi 2**.
- Face detection using **OpenCV** and digit recognizer using **Machine Learning**.
- Using **GPIO** ports of Raspberry PI to read and write data.
- Using STT (Speech To Text) with Raspberry to control home appliances.
- Won 3rd place among more than ten groups at Gachon University and participated national competition.

Gachon University | 2019.04.01 - 2020.01.12

Researcher

- Computer Vision: Applying Machine Learning models into Computer Vision field.
- Data Analysis: pandas, seaborn, matplotlib and etc.
- Machine Learning based Recommendation System.
- Android app to control Rice Peeling Machine via Bluetooth.

- Building/Training/Inference and deployment of Deep learning models on Android OS and Edge devices.
- Published a SCI paper and several domestic conference papers.

EDUCATION

MS in Computer Engineering, Gachon University | 2018.09.01 - 2021.02.24

- GPA: 4.01 / 4.5
- Best paper award from **FISK** (Fire Investigation Society of Korea).
- Best presentation award from **ISIS2019 & ICBAKE2019**.
- Thesis: Automatic fire and smoke detection method for surveillance systems based on dilated CNNs

BS in Computer Engineering, TUIT | 2014.09.01 - 2018.06.12

- GPA: 85 / 100
- Studied C++/Java/PHP/JavaScript, Algorithms, Dynamic Programming, Web Programming and etc.
- Projects:
    - Desktop UI for English language learners with a dictionary more than 25k words using C++ Builder 6 and Embarcadero C++.
    - Website: Car Sale, Concrete companies web page design.
    - Air Conditioning system in green houses using Embedded device (Arduino Uno).

SKILLS

Technical skills:

- Programming Languages: Python/C++/Java
- Technologies: PyTorch, Tensorflow, Keras
- Data Analysis: pandas, matplotlib, seaborn
- Coding: Problem-solving, Competitive programming
- Linear Algebra Statistics, Calculus, Discrete Mathematics

Languages:

- English - Professional working proficiency
- Korean - Limited working proficiency
- Russian - Elementary working proficiency
- Uzbek - Native

PERSONAL QUALITIES:

- Determined and decisive: Uses initiative to develop effective solutions to problems.
- Reliable and Dependable: High personal standards and attention to deal.
- Emotionally mature: Calming and positive temperament, tolerant and understanding.
- Strong planning: Organizing and monitoring abilities.

INTERESTS AND ACTIVITIES

- Machine Learning / Deep Learning / Computer Vision / General AI / Cyber Security
- Research & Development
- Hiking & Travelling