

# Mingran Bai (Miles)

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**Email:**

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**Portfolio:**

milesbai.com

ieeexplore.ieee.org/author/37085403280

## Summary

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I am a Software Engineer with 8 years of work experience in software development and computer vision. Adept at navigating diverse work environments, I bring valuable technical solutions experience from my tenure at the global 2nd largest video surveillance company where I collaborated within a large team, as well as from a small e-commerce team where I led the development of data pipelines and AI products. Additionally, I hold a Master's degree in Computer Applications from one of China's top postgraduate academies.

Committed to driving innovation and tackling concrete challenges, I am eager to leverage my skill set and experience to contribute to your company's goals.

## Skill Highlights

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C / C++

Python

Javascript + CSS

Swift

Test Driven Development

CMake

git

SQL

computer vision

image processing

pytorch

lightning

## Work Experience

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**Software Engineer - Algorithms - Intermediate** Nov 2023 to present

ZOZO New Zealand. Auckland - Full Time Employee

- Participated in the algorithm improvement of a makeup transfer APP, improving the color effects in lip and correcting errors in makeup simulations.
- Integrated an unpaired image translation model training process within the internal training platform and working on eyelid type translation.

**Senior Software Engineer** Jul 2019 to Feb 2023

**Taofenba network Inc.** Hangzhou, Zhejiang, China - Full Time Employee

In my role with the e-commerce virtual-try-on squad, I provided computer vision solutions for services such as virtual-try-on, fashion analysis and fashion image search. As of June 2023, Taofenba ranks 1st in China on the Virtual-Try-on App ranking list by liqucn.com.

- **Deep Learning on Server:** Developed, integrated and deployed AI services for tasks such as image analysis, face reconstruction, clothing key-points detection and human parsing.
- **Deep Learning on Mobile Phone:** Exported head detection and head pose estimation library for Android and iPhone platforms.
- **Data Pipeline development:** Designed, developed and maintained a python-based fashion image processing workflow system capable of transforming 2000 clothing items (SKUs) into digital assets every day.
- Mentored junior software engineers and wrote patent.

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**Data Science Researcher** - Sep 2018 to Jan 2019

**Megvii Technology Inc.** Shanghai, China - Full Time Employee

At Face Recognition squad, my research was primarily focused on enhancing the accuracy of extreme-posed face recognition.

- Advanced the extreme-posed face alignment method of 4x4 Spatial Transformer Network of GridFace, resulting in an improved identification rate of 77.2%, compared to the previous 75.4% in Multi-PIE dataset's face yaw at 90° .
- Developed, configured and evaluated a face recognition system.

**Algorithm Engineer** - May 2017 to Sep 2018

**Dahua Technology Co. LTD.** Hangzhou, Zhejiang, China - Full Time Employee

At Video Behavioral Algorithm squad, I led the development for the people counting task. Multiple surveillance cameras embedded with this AI algorithm were successfully launched in 2018.

- **Software Development:** Integrated, developed and optimized a c++ based people-counting PC software which comprised a detection module, a person tracking module, a false-positive filtering module, and a counting module. The embedded version of this software passed the evaluation of camera product line and embedded into several cameras onwards.
- **Algorithm Development:** Trained and maintained a pedestrian head and shoulder detector and developed a Tensorflow-to-Caffe model converter.
- **Annotation Management:** Managed feedback from specific failure cases, established and updated data annotation guidelines, and checked annotation quality. Conducted regular meetings with the annotation team to ensure high-quality annotations and address queries.

**Algorithm Engineer** - Jan 2015 to Nov 2016

**Miaomiao Image Search Engine.** Beijing , China - Full Time Employee

- **E-Commerce Item Detection:** Developed an e-commerce item detection algorithm in detecting 20 classes with a precision of 97% at 89% recall rate.
- **Hand Pose Estimation:** Developed a fast, lightweight hand pose estimation algorithm, which could run at 20fps in Samsung S7 with a RGBD camera.

## Education

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**Master of Computer Applications** - Computer Vision - 2011 to 2014 - **Chinese Academy of Sciences**

**Bachelor of Engineering** - Automation Engineer Technology - 2007 to 2011-**Minzu University of China**

( Won 2nd prize in the Beijing Undergraduate Electronics Design Contest, 2010. )

## Certification

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**Microsoft Azure for .NET Developers** - Udemy - Sep 2023