

Kevin He

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Skills

Programming Languages Python, C/C++, Javascript, Java, MySQL, HTML, CSS
Frameworks/Library Tensorflow, Numpy, Flask, Node.js, React, Spring, Webpack
DevOps Tools Jira, Git, Splunk, Docker, Gradle, Selenium, Linux

Work Experience

Tencent

Oct. 2020 - Jan. 2021

MACHINE LEARNING ALGORITHM ENGINEER

Shanghai, China

- Developed a cloud-based training module for hyperparameter optimization using **Pytorch** and **Flask**
- Improved efficiency of existing model training framework by **10.9%** using various HPO algorithms
- Decreased training time of deep learning models using SOTA earlystop techniques and **AutoML** in **Tensorflow**
- Deployed module using **Bash** scripts and **Docker** to production environment of **5000+** ML engineers

Bilibili

Jan. 2020 - May. 2020

BACKEND DEVELOPER

Shanghai, China

- Implemented a product scraping system using **pm2** task clustering and the **Node.js** Puppeteer library, capable of handling **8000+** requests per hour, superseding the previous iteration by **700%**
- Increased precision of product matching algorithm by **14%** using one-hot encoding in **Java**
- Enhanced anti-scraping bypass methods using ADSL IP proxy and storing browser info in **MySQL** database

Ford Motor Company

May. 2019 - Sep. 2019

FULL-STACK DEVELOPER

Waterloo, Canada

- Executed a major overhaul to the bug report system's **Knockout.js** UI, adding better visuals and vital vehicle info
- Raised decoded report information by **25%** by implementing regex and **Python** scripts to decipher vehicle build
- Maintained production database stability using **Splunk** and performed db rollbacks for emergency scenarios
- Added critical platform features to **Java Spring** backend using **REST APIs**

Projects

Project Ava

Sep. 2019

PYTHON, JAVASCRIPT, GCP

- Created a website that returns video indexes of a politician's speeches summarizing their stances on major issues
- Implemented video indexing using **Microsoft Azure** and frontend using **React**, and deployed backend on **GCP**

Privacy Policy Index

Sep. 2019

PYTHON, REACT, TENSORFLOW

- Developed an analysis program using machine learning to determine the readability + quality of privacy policies
- Implemented a linear regression **ML** model to rate the policies from 0 to 5 based on the text's vocabulary
- Designed frontend UI with **Ant Design**, a **React** library, and **Flask** backend

PAC-man.c

Oct. 2018

ARDUINO, C/C++

- Developed modern implementation of Pacman in **C** controlled by an **Arduino** modified as a gamepad
- Utilized **Strategy** design pattern to implement ghosts, which have unique behaviors same as the original game
- Executed game design and implementation in **C** and programmed the modified Arduino controller in **C++**

Education

University of Waterloo

Sep. 2018 - Jun. 2023

B.S. IN SOFTWARE ENGINEERING

Waterloo, Canada

- Relevant Courses: Data Structures, Design Patterns, Database Management, Probability + Statistics, Compiler

Lighthouse Labs

Jul. 2018 - Sep. 2018

DIPLOMA IN WEB DEVELOPMENT

Montreal, Canada

- Skills acquired: full stack development (**React**, **Node.js**, **PostgreSQL**), version control, web project building