Liang Dai

An aspiring software engineer. Ready to get my hands dirty, eager to solve complex challenges!

Troy, MI (Willing to relocate)
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EXPERIENCE

Mechatronic Engineer @ TG Automotive Group LLC

Aug 2019 – current // Troy, MI
Based at SONIMA Corp., engine block assembly automation system control

- Designed, developed, and implemented the GoNoGo project. It uses a camera to scan QR code of the engine component to track and identify components on the production line. The application is written in C++ and Arduino, using Winsock API.
- Implemented the OP400 production line image recognition system upgrade, which is a computer vision application written in C++, integrated OpenCV to identify bolts by the image intensity.
- Completed 90 production test requirement of component testing, collected and analyzed 9,000 test data by writing python script, and assessed the final program parameters, also increased recognition accuracy by 7%.
- Conducted in the technical review and business collaboration meeting of the new belt conveyor project for YFAI Global Automotive Interior Highland Park plant, and proposed a technical support plan.

Teaching Assistant @ Pace University

Jan 2019 – May 2019 // New York, NY
TA of CS641 Mobile Web Content and Development course (Angular 7, Ionic 4)

- Assisted and advised students with their exercises during the lab session.
- Graded and gave feedback to 29 students' assignments, and analyzed students' common errors, then delivered correct logic and solution report.
- Created and lectured Angular App Architecture, wrote assignment and quiz.

ITS Technician @ School of Law at Pace University

Oct 2017 – May 2018 // White Plains, NY
Worked at ITS office, providing hardware and software support

- Assisted users by troubleshooting and resolving technical issues on devices. Maintained computers, printer, and network across campus. Reimaged Windows and macOS, created scripts to configure the OS.
- Supervised 2 new staff, provide guidance and training.
- Monthly received 3+ praises by professors and staff from supervisor's report.

PROJECTS

Math Gun =>

- > An efficient, mobile and browser friendly Progressive Web App, built with vanilla JS, HTML canvas.
- > Implemented plot a line on canvas coordinates by the math equation. Helps to understand the slope and Y Intercept.

Explorer =>

- > A hybrid mobile app, built with Ionic integrated Google Vision and Wiki API.
- > The app helps explore the world by taking any photo of what you're seeing, then the app will feed you the WIKI information.

SKILLS

Programming Languages

Java, Python, C++, JavaScript(ES6), TypeScript, HTML, CSS/SCSS, Arduino

Web & Mobile Technologies

Angular, Ionic, Cordova, Node.js, REST API, PWA, Responsive design, Android SDK, iOS SDK

Machine Learning

NumPy, Pandas, Beautiful Soup, OpenCV, TensorFlow, Keras, Scikit-learn, NLTK

Tools & Others

GCP, Chrome DevTools, Git & Github, Bash, Tomcat, Postman, Google Colab, MySQL, Firebase, SQL, Agile methodology

Languages

English, Chinese(Mandarin)

EDUCATION

Pace University

2017 – Jun 2019 // Pleasantville, NY

Master of Science in Computer Science
GPA: 3.61

Nanjing University of Posts and Telecommunications

2011 – Jun 2015 // Nanjing, China

Bachelor of Management in Information Management and Information Systems
GPA: 3.29

VOLUNTEER WORK

ACUC Covid-19 Campaign =>

Mar 2020 – current // Online

IT volunteer, responsible for issue donation invoices, donation data cleaning and data automation by writing Python scripts.

New York Chinese school at White Plains

Jan – Jun 2018 // White Plains, NY

Chinese teacher for class CSL4