

# Alan Lo

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## EXPERIENCE

### **WEEDMAPS | BACKEND SOFTWARE ENGINEER II**

Aug 2023 - Present | Irvine, CA

- Collaborated with SREs to upgrade database migration to HasuraDB, improving both efficiency and reliability
- Created a Docker-based local environment with the Platform team, allowing full end-to-end testing for Weedmaps services
- Initiated and led the effort to greatly enhance unit test coverage for the Ad-Serving Platform, increasing code reliability and speeding up development

### **DISH NETWORK | SOFTWARE ENGINEER II**

June 2019 - Present | Englewood, CO

- Implement and Deploy Dish's Proprietary microservices as Docker-images into Amazon EKS(Kubernetes)
- Maintain Client-to-Server communication with Gstreamer API for On-Demand video streaming using Java/Kotlin
- Arbitrate with Software Architect and Product Owner for planning and delivering of customer-facing features while executing Agile/Scrum framework for quarterly iteration
- Applying root cause analysis on real-time logs to diagnose and resolve defects in real-time Backend Applications

### **FUJITSU FRONTECH | SOFTWARE SUPPORT INTERN - BIOMETRICS SECURITY**

Apr 2018 - Aug 2018 | Foothill Ranch, CA

- Utilized VMWare to assure Palmsecure sensor capabilities in different OS
- Revised Palmsecure user-space sensor driver code from v3.x to function in v4.x Linux Kernel
- Proposed SOC processors to ensure secure-boot for PalmSecure Biometrics Authentication
- Interfaced C++ application functions into NodeJS modules with Javascript
- Provided technical-support to customers in preparing software development kit for PalmSecure biometrics authentication

### **DELPHI DISPLAY SYSTEMS | ENGINEERING INTERN**

Oct 2017 - Mar 2018 | Costa Mesa, CA

- Composed Quality Assurance test assets for Software Test Verification and Validation
- Executed and documented 10+ quality assurance test procedures and its results
- Validated procedure for image software creation for display systems
- Reduced time in quality test cases by 75% with automation in Selenium
- Utilized SharePoint by modifying design documents and BOM

### **ELAC-LEARNING CENTER | TUTOR/CAI-LAB ASSISTANT**

Oct 2014 - Jul 2015 | Monterey Park, CA

- Instructed 50+ college students with diverse backgrounds in STEM-related subjects
- Assisted first-year and continuing students with accessing campus provided softwares and applications
- Utilized Microsoft Access in keeping records of returning tutee

# PROJECT

## BIOMETRICS HAND SCANNER ON CURVED SURFACES | SENIOR DESIGN PROJECT

Sept 2017 - Apr 2018

- Integrated control software on Raspberry Pi with CMOS Camera sensor into a curved push bar door-handle for capturing Biometrics data and uploading to Dropbox
- Investigated various Optic Filters on Curved Surfaces to enhance quality of Biometrics data captured with CMOS Camera sensor
- Enhanced Quality of Biometrics data by executing SobelX and Median Blur Image filtering algorithm in OpenCV

# EDUCATION

## UNIVERSITY OF CALIFORNIA, IRVINE | B.S ELECTRICAL ENGINEERING

### SPECIALIZATION IN DIGITAL SIGNAL PROCESSING

Relevant Coursework: Data Structures & Algorithms, Objected-Oriented System & Programming

Software Engineering with C, Systems Software, DSP Processor Lab & Design, Machine Vision, Financial Accounting

Jun 2018

# SKILLS

## PROGRAMMING

C/C++ • Java • Kotlin • Python

## SOFTWARES

JIRA • GNU Make • Android Debug Bridge • Git • OpenCV

• Ubuntu • Git • Docker • GStreamer API • MySQL

• AWS • Fastboot • ExoPlayer API • Kubernetes

## HARDWARES

RaspBerry Pi B3 • I2C • Oscilloscope/Function Generator

• TI Launchpad-Cortex M4 • Telnet/Serial UART

• Broadcom Embedded Processors

## SPOKEN & WRITTEN

Native Proficiency:

Spanish

Limited Proficiency:

Mandarin/Cantonese