

# JUSTIN LLOYD

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## ACCOMPLISHED LEAD ENGINEER

*I make real products that people use. Beautifully designed. Practically built. Integrated with intelligent software that enables a seamless, connected experience.*

## EXPERIENCE

STEALTH STARTUP, San Francisco, CA (Remote) 2021/09 – Present

### **Computer Vision Lead**

Working on computer vision algorithms. Full body tracking. Structure from Motion. Multiple view geometry. Hand tracking. Facial feature tracking. Sensor fusion. TensorFlow. Python. C++. Rust. Neural networks. Model training. Low-level hardware interfacing. 3D rendering. Parallel programming. Game development.

It's a lot of fun. I'll talk about it someday.

ERICSSON, Los Angeles, CA 2020/04 – 2021/09

### **Technical Lead / Lead Firmware Engineer**

- Collaborate closely with a cross-functional team and product development managers on new 5G FWA (Fixed Wireless Access) routers.
- Build smart contracts on the Ethereum blockchain
- Board bring-up and firmware programming for three different hardware router SKUs using C, C++, Rust, Lua, Python, Solidity and Linux
- Reduce build times for the different firmware SKUs from 15+ hours to 20 minutes.
- Create an After Effects plugin to export animation data for embedded computer's custom designed display and the status LEDs
- Direct hiring of technical team members & lead a small development team

WAYFORWARD TECHNOLOGIES, Los Angeles, CA 2017/01 – 2020/04

### **Problem Solver / Lead Programmer**

- AR developer, game developer, pipeline engineer, server engineer & DevOps
- Create studio-wide, distributed, virtualized CI/CD pipeline for 80+ SKUs across eight platforms.
- Scale studio pipeline from building four SKUs to building dozens of SKUs in parallel in less time
- Decrease build time per SKU from 5+ hours to under 10 minutes.
- Develop client- & server-side mobile app: location awareness, custom sensor infusion, Blockchain, point-of-sale, order processing, machine learning & computer vision in unreliable, marine network environment
- Lead development of client- and server-side cross-platform, real-money, casual-friendly games
- Contributions to more than a half-dozen separate projects in a variety of roles and skills

L DIGITAL AGENCY, Los Angeles, CA

2012/12 – 2017/01

### **Head of Engineering / Founder**

Hire, build, lead, direct, coach and mentor diverse, mid-sized (30+), cross-functional design & engineering team. Company acquired by Accenture. Started small and grew from there.

- Develop & optimize native, network connected, cross-platform, OpenGL VR entertainment app
- Deep learning pattern recognition to reduce fraudulent casino transactions by 95+%
- Computer vision and machine learning prototypes for a CNC robotics system for IKEA
- Computer vision framework, deep learning and object recognition system for expenses app
- Computer vision to process medical data measured in the trillions of data points
- Computer vision/object recognition and SLAM algorithms for HoloLens

FACEBOOK, Los Angeles & Menlo Park (Hybrid Remote)

2013/12 – 2016/03

### **Mobile Platform Low-Level Engineer / Corporate Trainer**

- Working as a team-independent subject matter expert and low-level software engineer
- Board bring-up of Android and Linux up on new hardware in development
- Developing device drivers at the lowest levels of the operating system
- Developed a number of tools to help teams realize their goals.
- Develop courseware for corporate training
- Deliver in-depth, weeklong, corporate training to senior engineers on more than 60 occasions
- Class sizes averaging around 40 engineers.
- Classes were rocket-science level, deep-dives in iOS, Android & Linux

EBAY / Machine Learning Engineer

2013/05 – 2013/12

ASYLUM LABS / CTO & Co-Founder

2012/09 – 2013/05

SONOSIM / Chief Technology Officer (Acquired by GE)

2011/01 – 2012/09

BLIZZARD ENTERTAINMENT / Machine Learning Engineer

2010/02 – 2010/12

INFINITE MONKEY FACTORY / CTO & Founder

2001/10 – 2010/01

## **EDUCATION/TRAINING**

**Masters** Computer Science / Software Engineering  
Artificial Intelligence  
Business Administration (in-process)

**Bachelors** Computer Science

**Diplomas:** Electronics ▪ Culinary Arts (Baking & Pastries) ▪ Graphic Design ▪ Mathematics ▪  
Photography ▪ PMP ▪ International Business Law ▪ Tax Law ▪ Intellectual Property Law ▪  
Economics ▪ Accounting

**Post-Graduate Studies & Certificates:** Chartered Financial Accounting ▪ Enterprise  
Software Development Project Management ▪ Lean Project Management ▪ Marketing ▪ Growth  
Hacking ▪ Social Media Marketing ▪ Electronics & Circuit Design ▪ Restaurant Studies

**Other Certificates:** Management Accounts ▪ Commercial Business Law ▪ Social & Economic History of Europe ▪ Public Speaking ▪ Writing ▪ Certified Agile Practitioner & Trainer ▪ Certified Product Owner ▪ Certified Scrum Trainer ▪ Lean Software Development Practitioner ▪ Project Management for Enterprise Teams ▪ Project Management for Small Teams ▪ Scaled Agile Practitioner ▪ Kanban Practitioner ▪ Maya ▪ Softimage ▪ DevOps ▪ Photoshop ▪ Illustrator ▪ Premiere ▪ InDesign ▪ English Literature ▪ Japanese ▪ Welsh ▪ Mathematics ▪ Real-Time Rendering ▪ Sports Massage Therapy ▪ Technician Class Radio Amateur Operator *and many more.*

## SKILLS

**Technical Skills:** Artificial Intelligence, Deep Learning, Machine Learning ▪ Machine Vision ▪ Augmented Reality ▪ Virtual Reality ▪ Cross-Platform Development ▪ Game Development ▪ Low-Level Systems Programming ▪ Optimized Build Pipelines ▪ Motion Control Systems & Robotics ▪ Hardware Interfacing ▪ Autonomous Aircraft & Vehicles ▪ Containers & Virtualization & Emulation ▪ Sensor Fusion & IoT ▪ Microservices ▪ Driver Development ▪ GPU Programming ▪ CI/CD Pipelines ▪ Video Processing & Transcoding ▪ Compiler & Interpreter Development ▪ Low-Latency (sub 60ms) Glass-to-Glass Live Streaming ▪ Parallel & Distributed Systems ▪ Networked Applications ▪ Server Programming ▪ System Architecture ▪ SaaS ▪ Composable Infrastructure

**Soft Skills:** Team-Building ▪ Engineering Hiring ▪ Crisis Management ▪ Social Media Marketing ▪ Corporate Training & Teaching ▪ Client Relationships ▪ Public Speaking & Presenting ▪ Agile Methodologies

**Business Skills:** Accounting ▪ Business Development ▪ Entrepreneurship ▪ Negotiation ▪ Raising Start-Up Funding ▪ Team Leadership ▪ International Project Management ▪ Cross-Functional Project Management

**Languages:** C++ ▪ C ▪ Assembler ▪ Ruby ▪ C# ▪ Go ▪ Rust ▪ LINQ ▪ SQL ▪ N1SQL ▪ JavaScript/Typescript ▪ Java ▪ Perl ▪ Python ▪ Lua ▪ Kotlin

**Technologies:** DirectX ▪ OpenGL ▪ OpenCL ▪ .NET ▪ MVC.NET ▪ OpenWRT ▪ Qualcomm router OS ▪ Unity3D ▪ Unreal Engine ▪ nodejs ▪ NHibernate ▪ Entity Framework ▪ OpenCV ▪ Accord ▪ PyTorch ▪ CUDA ▪ TensorFlow ▪ YOLO ▪ Accord ▪ Underscore.js ▪ Processing.js ▪ Backbone.js ▪ Redis ▪ Couchbase ▪ RabbitMQ ▪ Regular Expressions ▪ Microsoft CNTK ▪ Microsoft Speech Recognition System

**Platforms:** Windows ▪ Linux ▪ RTOS ▪ macOS ▪ OpenWRT ▪ Playstation ▪ XBOX ▪ Switch ▪ x86 ▪ ARM ▪ Embedded Firmware ▪ iOS ▪ Android

**Software:** Docker ▪ Kubernetes ▪ VMWare ESX ▪ Vagrant ▪ Chef ▪ Puppet ▪ NGINX ▪ Jenkins ▪ TeamCity ▪ Apache ▪ MySQL ▪ MSSQL ▪ SVN ▪ Git ▪ Perforce ▪ Visual Studio ▪ IntelliJ