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(LinkedIn)
www.UkiDLucas.com (Blog)
scholar.google.com/citations (Rss)
github.com/UkiDLucas (Portfolio)

Top Skills

Amazon Web Services (AWS)

Delivery Performance

Strategic Thinking

Languages

Polish (Native or Bilingual)

English (Native or Bilingual)

Russian (Elementary)

Certifications

Machine Learning for Business
Challenges | Machine Learning
Online Course | AWS

Use C++ to build a Crypto Trading
Platform: Final System

C++ Object Oriented Programming
Specialization

Introduction to Algae (bio-
technology), UC San Diego, 5-week
class

Introduction to Object-Oriented
Programming in C++

Publications

Roadmap for Mobile Business

Patents

Methods and systems for coupon
service applications

Methods And Systems For Device
Management With Sharing And
Programming Capabilities

Methods and systems for device
management with sharing and
programming capabilities

UKI D. LUCAS

Director of Software, Firmware, and Systems Engineering - Sensor
Perception. Author. Mentor.
Sammamish, Washington, United States

Summary

A builder of extremely efficient teams that excel at creative thinking,
strategy, algorithm and architecture design. Always starting from the
User Experience (UX), Empathy, and Value to the Customer.

I am a strong advocate of writing and documenting. I am also an avid
reader and listener with a library of thousands of (mainly non-fiction)
books (paper, Kindle, and Audible).

Please review the recommendations section:
https://www.linkedin.com/in/ukidlucas/

I am also a dedicated mentor:
https://www.UkiDLucas.com/

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Experience

MicroVision
Director of Software, Firmware and Systems Engineering
October 2022 - Present (2 years 1 month)
Redmond, Washington, United States

Successfully navigated teams through a complex merger between Microvision
(USA) and Ibeo (Germany), creating a unified, efficient 350-person
organization.

Demonstrated expertise in implementing rigorous automotive standards such
as ISO9001, ISO26262, ASPICE, FUSA, and ASIL B(D).

- merger and integration of USA with a large, acquired German Ibeo software
team
- very close cooperation with hardware teams (Laser, MEMS, Optics, Analog
and Digital Design, RTL)
- managed firmware development

- systems development, architecture design, KPIs, and extensive documentation
- software to FPGA to ASIC transformation
- reading of scientific literature and algorithms review
- point cloud calibration and adjustments
- point cloud noise filtering
- retro-reflective artifact mitigation
- ground segmentation
- object classification
- multi-object tracking
- cluster and object velocity
- sensor fusion
- 3D environmental model
- simulation (Python and NVidia Drive SIM)
- Machine learning with DNN
- advanced ADAS features (still in stealth mode)
- MOSAIK ground truth reference and auto-annotation system product
- ISO 9001 complience
- ISO 26262 ASPICE compliance
- Automotive Safety Integrity Levels ASIL B(D)

Canoo
Engineering Manager of ADAS software features
October 2021 - August 2022 (11 months)
Michigan, United States

- Product owner for all of the 16 ADAS features going to production in 2022*
- Planning the total of 34+ ADAS features in the following 2 years*
- Managing the Functional Owner team
- Managing the Vehicle Control Algorithms team
- Managing relationships with AVL, the talent supplier for the vehicle control algorithms (~70 developers)
- Managing ADAS feature requirements in Polarion, defining feature behavior
- Managing ADAS feature delivery plan, inter-team dependencies in JIRA
- Reviewing and analyzing IPG CarMaker model simulations (MIL)
- Mentoring employees, setting best practices, and sharing the knowledge
- Hiring and interviewing of new candidates, quarterly reviews of the existing employees
- Conducting FMVSS 111 tests
* there was a change in direction for Canoo ADAS in August 2022.

HARMAN International
4 years 6 months

Senior Manager, ADAS @ Harman/Samsung
January 2021 - October 2021 (10 months)
Novi, Michigan, United States

- Technical Team Leadership (teams in USA, Germany, India, China, and
Korea)
- Setting team goals, tasks, and milestones
- Defining the development processes and best practices (including ASIL A-D,
ASPICE 1-3)
- Co-authoring of the roadmap for the ADAS/AD computing platform
- Developing system (hardware and software) architecture for ADAS features
- Supporting (developing, porting, optimizing, and benchmarking) multiple
products including:
- surround view
- driver monitoring
- occupant monitoring
- auto park assist
- valet parking with automated driving vehicle control features (including
AUTOSAR, Simulink)
- augmented reality
- camera mirrors (center and side)
- and more

System Architect, ADAS LiDAR, Compute @ HARMAN, a Samsung company
January 2020 - October 2021 (1 year 10 months)
Novi, Michigan

- Design of ADAS Computing Module architecture for data processing, sensor
fusion, and neural network(s) acceleration
- Interaction with customers and vendors (drafting contracts, RFI, RFQ, and
product evaluation)
- Perception pipeline(s) design for multiple product lines including multiple-
sensor-data capture, data transformations, deep neural network(s) hardware
acceleration, HMI creations, and multiple display output.
- Hardware evaluation (e.g. SOC, ML accelerators, ISP, RGB, thermal
cameras, LiDAR, latencies, etc.)
- Code reviews and establishing best practices for Python, C / C++
- Designing integration of "Safety Island" AUTOSAR, Simulink vehicle control
models

- Supervising safety system test preparation (TARA, HARA), Functional Safety FuSA requirements, including SOTIF, for the ADAS compute

Previously, I have been leading the global LiDAR technical team.

I have experience in algorithm and machine learning model design and development for:
- object detection
- object recognition
- object tracking
- collision warning
- road plane and drivable route area
- lane detection
- street sign detection
- pedestrian and large animal detection
and more.

System Architect, Connected Car @ Harman/Samsung
May 2017 - January 2020 (2 years 9 months)
Novi, Michigan, United States

In my role, I was a System Architect and Functional Owner for several features of the model year 2021-2024, multi-billion dollar, FCA group program.

The FCA program included electronic and display systems for all Fiat, Chrysler, Jeep, Dodge, Ram, Maserati, and Alfa-Romeo vehicles.

My responsibilities included:
- daily interaction with the automotive manufacturer (i.e. FCA), and partners (TomTom, Voxx, Mitsubishi Electric, etc.)
- software system diagramming and architecture
- specification gathering, writing, and clarifications
- guiding development teams in best practices
- team leadership, interviewing, and mentoring
- automotive A-SPICE compliance

As the functional owner, I was responsible for:
- User Experience (driver, passenger)
- Android HMI,
- multiple Internet-connected (V2X) user profiles, including valet mode
- the multi-screen IVI architecture

- and 2nd-party application API and integration

Productive Edge
Technical Manager, mobile applications, IoT and Machine Learning research
October 2015 - May 2017 (1 year 8 months)
Chicago, IL

The Vitality Group mobile app portfolio.

I have been managing an Agile development team of 13 to 21 people developing a portfolio of iOS, Android apps, and the corresponding Web Services as well as the QA team. The applications are serving over 1 million corporate users from 362 employers such as IBM, McKesson, Amgen, John Hancock, Ericsson, and more.

Features: wellness habits, tracking gym sessions, steps, active calories, sleep, meditation, news feeds, health data, wellness events.

Duties: Estimation of work, budgeting, hiring decisions, mentorship, team operations, best practices, delivery management, and system architecture.

Notable apps developed for large insurance companies:
• Discovery
• John Hancock
• Manulife / Manuvie

In addition, various Mobile and Machine Learning R&D projects for ProductiveEdge.com
• gyroscope data processing, machine learning, deep neural networks
• chat and voice bots

CNH Industrial
Senior Consultant, vehicle control / Digital Cockpit / ADAS (CNH / Fiat Industrial)
October 2012 - September 2015 (3 years)
Burr Ridge, Illinois

Being passionate about both farming and vehicles, our team has been developing Android-based in-vehicle cockpit dashboards for controlling precision farming vehicles and implements and Linux boards for processing massive amounts of geodata.

Responsibilities:
• Developing Android HMI (UI) using Android
• Developing Java on Linux SBC, managing agricultural multiple geo-layer data (GIS) using relational databases

• Analyzing technical requirements

• Writing use cases

• Estimating future work

• Creating architectural plans and designs

• Create online documentation

• Daily code reviews using Gerrit

• Automated builds using Jenkins

• Controlling agricultural implements via CAN-BUS ISO-11783

• Controlling vehicles using SAE J1939 CAN BUS

CyberWalkAbout.com
founder, CEO
November 2011 - August 2015 (3 years 10 months)
Greater Chicago Area

The CyberWalkAbout team has developed several dozens of mobile applications including augmented reality, GIS, social networking, media, and entertainment.
Uki has operated this business for over 4 years and directly hired and managed 12 people.
Skills: Marketing, Client Relations, Team Management, Software Development

https://www.facebook.com/CyberWalkAbout

College of Lake County
College Instructor, Computer Science
August 2014 - June 2015 (11 months)
Lake County, Illinois, USA

Teaching CS classes (programming patterns and best practices):

• CIT 299: Android, Java programming

• CIT 137: Java programming, including JavaFX Graphical User Interface (GUI)

Sears Holdings Corporation
Architect, Mobile Innovation Group
September 2010 - November 2011 (1 year 3 months)
Greater Chicago Area

Mobile Innovation Group provided a strategy and technology solutions for Sears and Kmart mobile applications which won the "Mobile Retailer of the Year" award.

• iOS/mWeb tablet solution used by the employees in the Sears and Kmart stores
• The design of the mobile IoT solutions for household appliances that resulted in a patent application.

The Revere Group, NTT Data Company
Principal Practice Manager @ Open Systems Group
September 2006 - September 2010 (4 years 1 month)
Chicago

Managed a portfolio of large, multi-million dollar projects, software architecture, and software development teams.
Reported directly to the VP.
Notable projects:
- VivaKi (later Google.com)
- Underwriters Laboratories
- College of American Pathologists (CAP)
- Old World Industries
- OurSportsCommunity

Leo Burnett
Software Developer (consultant)
2004 - 2005 (1 year)
Publicis Groupe

Developed software solutions for Thomson Educational Publishing.

MSDSonline
Director of Technology
2000 - 2003 (3 years)

Worked directly with the CTO and VP, a leading large team.
During my tenure, this technology company reached 125 people and became profitable
• Automated Document Exchange Services
• Biggest online MSDS search engine and repository tool
• Wrote PDF document management
• Wrote Java Web spiders, scanning tens of thousands of chemical documents daily
• Hired and managed a team of developers

Rolling Stone
Software Developer, Rolling Stone magazine, eMusic.com
May 1999 - May 2000 (1 year 1 month)

Participated in a team developing MP3 music player software and "front pages" of biggest music magazines.

Web (JavaScript, HTML, CSS) Software Developer for:

• RollingStone.com

• Tunes.com

• DownBeatJazz.com

• TheSource.com

US Marine Corps
Team Leader (Non-Commissioned Officer)
July 1993 - July 1997 (4 years 1 month)
Okinawa, Japan, at al.

EMC, 3rd Force Service Support Group to the 31st Marine Expeditionary Force

Military Occupational Specialization 1142: Electronics

Extensive experience in electronic bug diagnosis and repair.

Experience with diesel engine repair.

Experience with logistics (including software tools, parts ordering, and distribution).

Extensive experience in mapping and terrain navigation.

US Secret Security clearance.

Expert rifleman, qualified with a Beretta M9 pistol, M16A2, M240, SAW, 40mm grenade launcher, .50 cal, etc.

Explosive Materials Transportation licensed.

Total Leadership (management) qualified.

Marine Corps Water Survival School (MCWSS) qualified.

Advanced Open Water Diver (PADI licensed for recreational diving).

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Education

USMC, Engineering School (MCES MOS 1142)
Military Specialization, Electrical/Electronics Maintenance and Repair Technology · (1993 - 1994)

University of Maryland
Undergraduate studies, Behavioral Sciences (Cultural Anthropology of East Asia) · (1994 - 1997)

Lincoln Tech

ASE (professionally) certified for all major automotive systems , Automotive Engineering · (2003 - 2004)