



CEU Packet

1070 - AI Change Detection Workflow and its Benefits for Riverside County

02 COLLECTING AND MAINTAINING PROPERTY DATA

Description:

Learn how Riverside County envisioned an AI-augmented change detection solution for the discovery of significant unpermitted changes, anomalies within existing datasets to ensure integrity, better models, and fair & equitable assessment. Learn their approach to innovative thinking, reimagining work processes, and pursuing a digital transformation journey.

Start Date: 9/1/2021 3:00:00 PM

End Date: 9/1/2021 4:00:00 PM

Learning Outcomes:

1. The need for and advantages of having an AI-augmented change detection solution for assessment
2. The best time to adopt an AI solution and a framework to get started small, test it out and scale it up to the entire county
3. Methodology & frameworks, common pitfalls to avoid and benefits that Riverside ACR has realized

Presenters:

Kan Wang MBA - Riverside County, CA

Rajath KM - HyperVerge

Kan Wang

Profile: [linkedin.com/in/kanwang](https://www.linkedin.com/in/kanwang)

PROFESSIONAL EXPERIENCE:

Assistant Assessor-County Clerk-Recorder, Feb 2017 – present

County of Riverside Assessor-County Clerk-Recorder Office, Riverside CA

- Serve at the will of Riverside County Elected Official – County Assessor Clerk Recorder
- Oversee Administration division of the County Assessor Clerk Recorder office
- Oversee the County's Enterprise Solutions for Property Taxation (CREST) system modernization project
- Part of the leadership team developing departmental vision, driving initiatives, and designing/managing execution strategies and frameworks to ensure alignment of the visions at all organizational levels
Key initiatives include: Aerial imagery change detection (Machine Learning), digital transformation of certified records keeping and digital seals (Blockchain), decision-making using key performance indicators (PowerBI), process improvements & innovations through execution (Project Management), culture transformation through staff development, empowerment and fostering curiosity
- Member of Riverside County CEO's 2030 Strategic Culture and Educations committees assisting in planning and developing execution framework and strategies to achieve vision goals

Property Tax Systems Information Technology Officer, Jun 2012 – Feb 2017

County of Riverside Offices of Assessor-County Clerk-Recorder, Treasurer-Tax Collector, and Auditor-Controller, Riverside, CA

- Provided leadership as Program/Project Manager over County of Riverside Enterprise Solutions for Property Taxation (CREST) system modernization initiative
- Served at the will of Riverside County Elected Officials – County Assessor Clerk Recorder, County Treasurer-Tax Collector, and County Auditor Controller
- Responsible for presenting strategies, recommendations, and establish consensus throughout program/project life cycle
- Led County of Riverside Enterprise Solutions for Property Taxation (CREST) system modernization initiative sponsored by the three property tax departments and oversaw the 10-years \$98 million project budget for the initiative
- Managed ~\$28 million vendor (Thomson Reuters Tax & Accounting Division) contract and responsible for vendor performance and quality of deliverables
- Implemented project management methodologies, designed program and project execution strategies and frameworks, and provided leadership throughout phases and activities
- Facilitated and chaired program governance meetings
- Delivered program and project management presentations, and status updates, at various California Assessors', Treasurer-Tax Collectors', and Auditor-Controllers' conferences

Information Technology Officer II, Oct 2011 – Jun 2012

Information Technology Officer I, Sep 2007 – Oct 2011

County of Riverside Department of Public Social Services (DPSS), Riverside, CA

- Provided leadership to approximately 30 mid- to senior-level IT professionals, including 5 direct reports, consisting of Project Management Office, Business Analysis & Requirements, Application Development, Infrastructure Architecture, Standards Licensing and Quality Assurance units
- Accountable and responsible for managing portfolios of enterprise IT projects and initiatives
- Initiated and spearheaded the adoption and implementation of industry standards in IT operations including IT Service Management Lifecycle (ITIL), Portfolio and Project Management (PMI) methodologies, and System Development Lifecycle (SDLC) frameworks

County of Riverside California Assessors County Clerk Recorder

Topic	Learning Objectives	Timed Outline (min)
Introduction & Need for a Change Detection solution	<ul style="list-style-type: none"> • Learn about the importance of data integrity and how it impacts fair & equitable assessment • Understanding the best time to adopt change detection technology 	10
Status Quo and challenges	<ul style="list-style-type: none"> • Culture of innovative thinking and digital transformation journey • Existing solutions and challenges of status quo 	10
New AI-based workflow	<ul style="list-style-type: none"> • Salient features in a new-age AI based change detection software • Making AI to meet your county's specific needs • How to integrate with existing dataset to create a seamless workflow 	15
Benefits obtained	<ul style="list-style-type: none"> • Learn about the benefits obtained from an AI based change detection 	10
Looking ahead .. What more can be done	<ul style="list-style-type: none"> • Learn what AI, specially Computer Vision, can do • What are all the use cases that be unlocked for assessors 	5
Q & A		10

Kan Wang

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- Chaired of DPSS IT Executive Committee (ITEC) composed of all DPSS divisional executives to establish portfolio/project priorities, build consensus, define business strategies, ensure IT-business alignment, and strengthen partnership, confidence, and communication between IT and the business units
- Developed, reviewed, and implemented IT projects and policies pertaining to compliance requirements by Federal, State, and County level IT and security mandates, regulations, and policies
- Developed long-term IT strategies, technology roadmap, and tactical sub plans
- Provided leadership and management development mentorship to strengthen functional leadership performance and effectiveness within the IT Engineering group

Executive Management Consultant, Sep 2010 – Dec 2010

Diamond Wipes International, Chino, CA

- Assessed company's organizational structure and people-process pain points as it rapidly grows in sales and operational complexity
- Designed and implemented 'people' development and management framework and procedures for the organization
- Developed training modules and lessons for first-line supervisors and managers

Director of Web Development & Acting CTO, Sep 2006 – Aug 2007

Playhut, Inc., City of Industry, CA

- Led the process improvement effort to streamline and expedite solution development processes for 25 IT staff spread between US and China office
- Provided leadership and managed the corporate IT support and operations unit
- Managed \$2 million research, development, and launch budget for the division's new web platform
- Developed the revenue model, product roadmap, marketing strategies and detailed business plan for the new division's new system

Business & Technical Management Consultant, May 2004 – Sep 2006

Au Courant, Inc., El Monte, CA

- Provided executive-level strategic management consultation and recommendations to define and improve business models and opportunities
- Developed financial forecasts, sales strategies, operations strategies, and/or business plans for start-ups and established clients
- Facilitated various board of directors and advisory board meetings for clients
- Represented clients to perform sales and fund-raising presentations and negotiations

Director of Information Technology, Aug 2003 – May 2004

All Media Outlet, Inc., City of Industry, CA

- Analyzed and developed company's mission critical legacy e-commerce system and redefined key performance indicators and metrics to monitor operational efficiency and performance for improvement opportunities
- Led the re-architecture, design, development, and implementation of the company's mission critical \$10 million a year revenue generating e-commerce platform. The initiative was completed on time and on budget.
- Provided leadership to IT, Online Marketing, and Order Fulfilment functions to streamline operational processes and increase order-to-fulfilment capacity

Kan Wang

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- Formulated search engine optimization, pay-per-click, affiliate programs and email broadcasting strategies

Project Manager, Jan 2003 – Aug 2003

Helen Design, Inc., Temple City, CA

- Managed the development from concept to launch of the e-commerce system
- Programmed the core components of the e-commerce system using Perl and MySQL within Linux environment

Production Supervisor, Oct 2000 – Dec 2002

EDT Learning (Quisic/IEC), Los Angeles, CA

- Restructured and redefined courseware development quality assurance processes and decreased staffing and duration needed for testing cycles
- Presented the process improvement to corporate client executives to resolve quality concerns and re-establish confidence to company's products
- Supervised a team of courseware developers developing corporate training system and simulations for Fortune 500 clients

Project Manager (Co-Founder), Pistudio, Inc., City of Industry, CA 1999 – 2000

System Quality Analyst – Ceridian Tax Services, Fountain Valley, CA 1998 – 1999

System Analyst Consultant (Contract) –Yeali, Inc., Guangzhou, China 1997 – 1998

Multimedia Programmer – Learning System Sciences, North Hollywood, CA 1996 – 1997

TEACHING EXPERIENCE:

Lecturer

- Provide students an illuminating, in-depth look on the impact of information technology in the current business environment
- Develop and deliver lecture material and lesson plans on leveraging information technology through system analysis and design techniques in the context of managing and enhancing operational productivity and efficiency

University of California, School of Business and Anderson Graduate School of Management, Riverside, CA,

Fall 2010 – Spring 2012, Fall 2017 - Present

- Courses: BUS 171 & MGT281 System Analysis and Design (SDLC); BUS 174 & MGT 280 Electronic Commerce; BUS 163 Technology Entrepreneurship; BUS173 & MGT 230 Database Management

California State University, College of Business Administration, Pomona, CA, Fall 2012 – Spring 2019

- Courses: CIS310 Management Information System; GBA547 Management Information System; CIS101 Intro to Microcomputers

SPEECHES & PRESENTATIONS:

Thomson Reuters SYNERGY Users' Conference for Governments

- Speaker at *Sr. Leadership Symposium: Changing Mindsets in Software Procurements* – Sept 2019
- Speaker at *Technical Learning Session: De-mystifying Blockchain* – Sept 2019

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Project Management Institute (PMI) California Inland Empire Chapter

- Speaker on *Managing an Enterprise Project: Lessons Learned - Leveraging Innovation for Success* – July 2017
- Speaker on *What does it take to keep a \$100 million project moving forward* – Aug 2015

California County Information Services Directors Association (CCISDA) Property Tax Workgroup

- Speaker on *Property Tax System Project* – Jan 2019
- Speaker on *Property Tax System Project* – Apr 2017

California Assessor Association – Information Technology Conference (CAA-IT)

- Speaker on *Demystifying Blockchain Technology* – Apr 2021
- Speaker on *Property Tax System Project* – Apr 2018
- Speaker on *Property Tax System Project* – Apr 2016
- Speaker on *Property Tax System Project* – Apr 2015
- Co-Presenter on *Property Tax System Project* – Apr 2014
- Co-Presenter on *Property Tax System Project* – Apr 2013

California Association of County Treasurers and Tax Collectors Conference (CACTTC)

- Co-Presenter on *Project Status, Management Structure and Governance* – Mar 2014
- Co-Presenter on *Project Status, Management Structure and Governance* – Mar 2013

EDUCATION:

Master of Business Administration

Management, California State Polytechnic University, Pomona, CA - 2010

Master of Science in Applied Computer Science

Computer Information Systems, Azusa Pacific University, Azusa, CA - 2003

Bachelor of Science in Business Administration & Economics

Management Information Systems, California State University, Northridge, CA - 1997

SELF PUBLISHED WORK:

***People, Process, and Technology Management Framework – A Manager’s Practical Guide to Establishing a Structure for Growth* - August 2011, ISBN: 1463617844 ISBN-13: 978-1463617844**

- Framework developed for non-technical managers to efficiently and effectively manage people, optimize business processes, and leverage the ‘right’ IT solution that delivers desired outcomes

CERTIFICATIONS:

- Information Technology Infrastructure Library (ITIL) v3 Foundation Certified