



# AUGUSTIN CHAN

## TECHNOLOGY LEADER | SOFTWARE ARCHITECT

### PROFESSIONAL SUMMARY

Senior technology professional with over 20 years of experience spanning software architecture, development, consulting, and technical leadership in demanding enterprise environments. Demonstrated expertise in Master Data Management (MDM), performance optimization, and solving complex technical challenges for global customers. Currently leveraging deep technical expertise as CTO of Digital Rain Studios, driving innovation in AI-powered applications and Web3 integration, including the award-winning 8-Bit Oracle project. Passionate problem-solver adept at bridging the gap between established enterprise systems and cutting-edge technologies.

### TECHNICAL SKILLS

- AI/ML: LLM Integration (Claude API), Prompt Engineering, RAG Frameworks (Llamaindex, Haystack), Streaming AI Responses, Token Usage Monitoring
- Web Development: React, Next.js (App Router, RSC), Tailwind CSS, shadcn/ui, JavaScript/TypeScript, HTML, CSS, next-intl (i18n)
- Backend & Languages: Java, SQL, PL/SQL, C++ (prior)
- Databases & Data: PostgreSQL (Supabase), Oracle, MS SQL Server, Elasticsearch, MDM (Informatica/Siperian), Data Modeling, Data Cleansing, Fuzzy Matching, Distributed Caching (Infinispan)
- Web3 & Blockchain: Solana, EVM Chains, NFT Access Control, Wallet Integration, Cryptographically Secure Random Number Generation (Web Crypto API)
- Platforms & Tools: Supabase, Vercel (Edge Functions), JBoss, WebSphere, Eclipse, Perforce, Maven, Git, Yourkit, JMeter, Docker (implied via VMWare exp), VMWare
- Concepts: Full-Stack Development, Real-Time Systems (WebSockets), Performance Tuning & Profiling, Distributed Systems, Technical Architecture, Pre-Sales Engineering, Technical Support, Consulting

### ACADEMIC HISTORY

- University of California, San Diego (UCSD) – La Jolla, CA | 1996
  - BS in Cognitive Science with Specialization in Computation
- Bronx High School of Science – Bronx, NY | 1991

### CONTACT

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# PROFESSIONAL EXPERIENCE

## AUGUSTIN CHAN

### CTO, DIGITAL RAIN STUDIOS (SELF-EMPLOYED) | HONG KONG + CYBERSPACE

Nov 2023 - Present

- Spearheading the development of innovative AI-enabled experiences combined with Web3 gamification.
- Led the full-stack development of 8-Bit Oracle (8bitoracle.ai): An AI-powered I Ching divination platform featuring cryptographically sound algorithms and Web3 integration.
  - Engineered Core Platform: Built using Next.js 14 (App Router, RSC), React, Tailwind CSS, shadcn/ui, Zustand, and Supabase (Auth/PostgreSQL). Deployed globally on Vercel with Edge Functions.
  - Developed Advanced AI System: Implemented sophisticated prompt engineering for Claude API with custom XML tagging, streaming responses, and token monitoring for the 8-Bit Oracle platform.
  - Built Cryptographically Secure Divination: Created a mathematically faithful yarrow stalk simulation using Web Crypto API for 8-Bit Oracle, validated via 1 M+1M+ iterations. Developed full hexagram interpretation logic.
  - Implemented Real-Time Features: Integrated WebSockets for live updates, user presence, live divination feeds, group divination, and notifications within 8-Bit Oracle.
  - Integrated Web3 Capabilities: Designed token-gated features, multi-chain wallet connections (EVM/Solana), and NFT-based access control for 8-Bit Oracle.
  - Launched & Gained Recognition: Successfully launched 8-Bit Oracle, achieving significant traction and recognition, including:
    - Featured by Coindesk for 8-Bit Oracle win at Consensus HK Hackathon (Feb 2025)
    - Presented 8-Bit Oracle at Taipei Blockchain Week (Dec 2024)
    - Consensus HK Hackathon Winner (8-Bit Oracle) (Feb 2025)
    - Collaborated on integrations for 8-Bit Oracle with OriginTrail and Bonsol.(Q1 2025)
- Experimenting actively with open-source LLMs and RAG frameworks (Llamaindex, Haystack).
- Providing pro-bono technical guidance to non-profits/NGOs.
- Documenting development findings at memorymesh.ai.



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## AUGUSTIN CHAN

### DEVELOPMENT ARCHITECT, INFORMATICA | HONG KONG

Aug 2011 - Nov 2023 (12 years 4 months)

- Development Architect, MDM (Jun 2015 - Nov 2023)
  - Played a key role as a contributor to the Informatica MDM product codebase since 2018.
  - Architected and implemented major performance enhancements to the MDM fuzzy match engine, achieving up to 200% improvement (dataset dependent) via linear scaling across servers/threads using distributed caching (Infinispan) and hotspot management (cmx.server.match.engine.version=2/3).
  - Refactored core matching components, allowing for multi-threaded, distributed batch jobs spanning multiple nodes.
  - Provided global architectural guidance, design reviews, advanced performance tuning, and critical issue resolution for top-tier MDM customers worldwide, focusing on APJ.
  - Acted as the last line of defense for complex production outages and performance bottlenecks, coordinating with Global Customer Support (GCS) and Engineering, sometimes delivering direct code fixes.
  - Improved product performance in various areas through parallelization and optimized distributed cache usage.
- Technical Delivery Manager - MDM (Sep 2014 - Jun 2015)
  - Managed technical delivery aspects for MDM projects.
- Senior Consultant - MDM and Data Quality (Aug 2011 - Sep 2014)
  - Led design, development, deployment, and testing for Informatica MDM solutions, including the first MDM customer implementation in the Asia Pacific Region (2011).
  - Specialized in Siperian MDM implementation: requirements gathering, data modeling, match/merge tuning (including Chinese Fuzzy Search), trust/survivorship rules, IDD configuration, workflow design, and custom development (Java/PL/SQL User Exits).
  - Successfully led and delivered MDM projects for major clients, including a major Airline, an Insurance Company, and a quasi-governmental agency.
  - Assisted pre-sales efforts with complex Proof-of-Concepts (POCs) for major prospects (e.g., Malaysian Bank, Chinese multinational tech company).





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## AUGUSTIN CHAN

### CONSULTANT, DUN & BRADSTREET (VIA ACQUISITION OF PURISMA | HONG KONG & REDWOOD CITY, CA, USA

Jul 2006 - Aug 2011 (5 years 2 months)

- Senior Consultant - Advanced Solutions (MDM) (Feb 2009 - Aug 2011)
  - Provided remote consulting for hosted MDM customers and expert troubleshooting support for field consultants on complex issues.
- MDM Appliance Deployments (Dec 2007 - Jan 2009)
  - Established processes and executed fulfillment for a new line of MDM software appliances using VMWare, embedding Purisma fuzzy matching and Oracle DB on RPath Linux.
- MDM Sr. Pre-Sales Engineer (Purisma, Inc.) (Jul 2006 - Dec 2007)
  - Provided critical pre-sales technical expertise and post-sales support for Purisma's MDM solutions, contributing to the company's growth before prior to its acquisition by D&B in Nov 2007.

### PRIOR EXPERIENCE (1996 - 2006)

Includes roles as Owner/Principal Broker at Safe Harbor Properties (San Francisco, CA); Senior Consultant at Blackstone Technology Group (San Francisco, CA); Sales Consultant and Systems Engineer at Vitria Technology (Sunnyvale, CA); Product Specialist at WorldChain, Inc. (Fremont, CA); Systems Consultant at Sybase (New York, NY); and Technical Support Engineer at Prolifics/JYACC (New York, NY). Experience involved EAI, Java/C++, CRM integration, database technologies, pre-sales, technical support, and real estate brokerage management.