# Chirag Mehta

11317 Country Club Road Woodstock, IL 60098-8034 (732) 406-0879 chirag@chir.ag

#### **SUMMARY**

Principal engineer and software development lead with 20+ years of experience in solutions architecture, full-stack application development, business process management, healthcare platforms, and supply chain processes, with focus on creating user-friendly, scalable, and standards-compliant software systems.

#### WORK EXPERIENCE

### Principal Engineer

#### **Chief Architect:**

ClaraRx Systems Aug 2023 – Present

Architected and managed the development of HIPAA-compliant Specialty Pharmacy EMR SaaS, directing team of 16 engineers, developers, UX designers, and healthcare SMEs. Designed no-code, customizable modules for:

- insurance claims processing
- ledger-based billing
- drug compounding and dispensing

- e-Prescription
- sales CRM
- inventory management

- role-based security
- workflows & reports
- business intelligence
- LLM integration for document automation

PostgreSQL, TypeScript, React, NodeJS with Koa, ActiveReportsJS, ChangeHealth, SureScripts, OpenAI

### Software & DevOps Automation:

Designed and developed back-office tools for source code synchronization, CI/CD, container scaling, and aggregated monitoring using:

- Salesforce OCLIF, TypeScript command-line tools for code deployment, logging, and debugging
- Multi-stage Docker builds with Parcel for React HMR, Caddy, PM2 for NodeJS
- AppSmith low-code console for customer environment configuration, API-integrated deployment
- Cloud-Native PG Kubernetes with Ceph-RBD cloning, S3/Cloudflare sync, read-only nodes for BI

#### ERP Consultant

Formulated Solutions 2010 – Aug 2023

Director of IT Formulated Solutions 2004 - 2010

# **Enterprise Resource Planning (ERP) Implementation & Development:**

Managed employees from various departments for the ERP implementation project. Propelled the company's growth from a small (50 employees) to mid-sized business (700+ employees). Enabled the company to increase work-center utilization by developing software for efficient scheduling, planning, and resource management. Integrated financials, manufacturing, quality, and warehousing with:

- Microsoft Dynamics NAV (Navision)
- automated purchase planning requisitions
- wireless bar-code scanners and kiosks
- custom shipping & load-plan module
- project management app with templates
- cGMP/FDA employee training matrix
- accounting module with fixed assets
- web-based MPS/MRP with forecasting
- quality control module for pharmaceuticals
- inventory costing: standard and FIFO
- process-engineering & workflow
- PLC/SCADA integration for data collection
- automated batch record printing (PDF)
- reporting in Excel & real-time web dashboard
- C/AL, Apache2/nginx, PHP8, MySQL/MariaDB, jQuery, Bootstrap, Excel, JetReports, iOS

#### Software & Web Development:

Created two-way API integration between company ERP and MasterControl, ADP WorkForceNow, Kronos/eTime, Navisphere (C. H. Robinson), and SecurePerfect to provide a single source of truth for various datasets which completely eliminated instances of stale data and relieved employees from manual data entry. The robust middleware efficiently synchronized records between disparate systems and provided:

- real-time change log for audits
- scheduled and on-demand differential sync
- .NET, PHP8, SQL Server, MySQL, iQuery, Excel
- web-based admin interface for managers
- released documents in various formats
- archiving features not provided by original APIactive employee list with security access

Developed B2B e-commerce site for 1000+ SMB customers which reduced lead-times, improved payment collection, and minimized shipping inefficiencies and offered:

- secure customer shopping portal
- full-featured order processing system
- customer relationship management module
- online payment-processing

Apache, PHP, MySQL, MS Access, Excel

- secure user and administration panel
- multi-stage discounting, product pricing
- location-based distributor assignment
- real-time reporting via online dashboard

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### Systems, Networking, Security, and Support:

Upgrading to Nutanix-based Citrix/VDI servers enabled 250+ employees to use company systems without additional labor investment in IT. Implementing various IT systems enabled the company to reduce spending, increase uptime, and improve communication across the enterprise via:

- 300+ virtual servers running on Nutanix AHV
- Office 365 integration with GPO
- corporate instant-messaging: OpenFire / Teams 3CX VOIP system, 250+ phones across 3 sites
- web-filtering and reporting using WebTitan
- real-time replication to Azure Cloud for DR
- file-integrity-monitoring & auditing
- Rapid7 SEIM, Cylance A/V for endpoints
- Citrix VDI for 250+ users
- Active Directory, Windows 2016-2019
- real-time network monitoring with alerts
- Cisco networking equipment, Dell/HP servers
- CCTV video surveillance for 300+ IP cameras
- DarkTrace, 0365 ATP for cloud email security

# IT Administration and Technology Management:

- Introduced and formalized Information Technology Computing Policies
- Established company-wide Disaster Recovery and Redundancy Plan for IT
- Developed procedures for system & network startup, shutdown, and troubleshooting
- Managed IT Helpdesk staff and IT vendor projects
- Deployed and administered IT ticketing system for helpdesk requests and tracking

Solutions Developer Rutgers College IT 2002 - 2004

Proposed, designed, developed, and successfully implemented broad range of financial, academic, and critical information management systems. Successfully eliminated paper timesheets, relieved student and staff from manual verification of payroll hours, and cut down payroll roster generation time from 16 hours to 2 hours. Integration with existing Payroll and Financial system cut down processing time from hours to minutes with:

- web-based front-end for 200+students
- online approval of valid shifts
- compose and process PO requests online
- Access front-end for staff, MSSQL back-end
- integrate with budget allocations
- dynamic PDF report generation / emailing

IIS, ASP, ActivePerl, LDAP, MSSQL, MS Access, JavaScript, Oracle DB

#### **CONSULTING EXPERIENCE**

Envoy Digital 2012 - 2019

# **Software & Web Development:**

Designed and developed dynamic form-rendering and data-processing framework with granular security roles, customizable input controls, and extensible UI handlers. Implemented multiple single-page application front-ends for specialty pharmacy industry utilizing the core framework to:

- provide role-tailored interfaces for pharmacists, physicians, nurses, and back-office staff
- support offline data access, entry, and validation for field nurses using iPads
- create rich-media PDFs client-side for template-less printing
- offer real-time analytics using MS PowerBI embedded service

CoffeeScript, Backbone/LoDash, Bootstrap, Grunt, LessCSS, HTML5/CSS3, Objective-C

### **Database Architecture:**

Constructed Domain Specific Language (DSL) for defining data model, table relationships, security model and UI rendering logic with dynamic plugin system for data transformation and validation. CSON/JSON, CoffeeScript

# **Book Lawyer Software & Web Development**:

2013 - 2015

Designed, developed, and implemented legal research web portal for proprietary document access, annotation, and text extraction. Developed back-end API infrastructure and front-end console to:

- enable time-limited trials, paid subscriptions, automated group billing, and A/R management
- auto-generate rich-text, personalized legal documents with minimal data entry
- simplify client-based billing for end-users by documenting and reporting billable activity PHP, CoffeeScript, pdf.is, Backbone/Underscore, Bootstrap, Grunt, Stripe API, WordPress

Wireless Innovations 2009 - 2014

#### **Business Process Automation:**

Streamlined order processing by integrating shipment tracking, fulfilment monitoring, and customer management into a single, automated data extraction toolchain. Eliminated laborintensive manual-entry process and significantly improved CRM data accuracy by creating headless remote login system supporting multi-stage authentication. Ruby, WATIR, MySQL, PowerShell

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FOCos Innovations Chief Architect:

2013 - 2014 Led team of 8 developers and SMEs to define and model micro-service-driven, business process workflow for EHR system conforming to state and Federal regulatory requirements. Analyzed historic and contemporary RFP/RFQs to:

- design modular system with plugin architecture for easy configuration & low-cost customization
- enable business process managers to define customer requirements using graphical-interface Visio, JIRA, Adeptia

# **Voalte** Software & Web Development:

2012 - 2013 Developed secure front-end administration console for physical resource management, user setup, security role assignment, and preset message template entry. Coordinated with back-end development team to:

- extend the ISON API to support file uploads and data import / export
- support real-time status updates and remote user logoffs

CoffeeScript, Backbone/Underscore, Bootstrap, ¡Query, LessCSS, HTML5/CSS3

#### **CO-FOUNDER EXPERIENCE**

SCHED.org 2008 - 2009

Co-founded and developed SCHED.org as a social-conference scheduler for the SXSW Music & Film Festival in Austin, TX in 2008. Modularized SCHED.org codebase to support scheduling for various corporate, technology, and arts & entertainment events by providing:

- venue, event, and presenter search
- event browser by popularity
- integration with Twitter for event attendees
- integration with Google Docs for admins
- location-based searching using Google Maps
- support for iPhone/Blackberry browsing

Apache2, PHP5, MySQL, jQuery, Twitter API, Google Docs/Maps API Wired.com interview: https://www.wired.com/2008/03/sxsw-this-years/

2007 - 2009

Chime.TV Developed and launched Chime.TV, an award-winning video mashup with focus on enhancing viewer experience. Reëngineered the interface and methodology for media sharing to enable:

- full-screen, continuous, cross-platform video playback without desktop software installation
- full-text search-engine indexing 10m+ videos
- video mail, history, and friend management
- user-defined video streams and channels
- embed complete video channels anywhere

Flash AS2, JavaScript, Apache2, PHP5, MySQL, mediaRSS, YouTube API

 $\underline{ZDNet\ \underline{interview}}\text{:}\ https://www.zdnet.com/article/chime-tvs-subject-based-channels-cut-across-internet-video-sources-with-one-ui/article/chime-tvs-subject-based-channels-cut-across-internet-video-sources-with-one-ui/article/chime-tvs-subject-based-channels-cut-across-internet-video-sources-with-one-ui/article/chime-tvs-subject-based-channels-cut-across-internet-video-sources-with-one-ui/article/chime-tvs-subject-based-channels-cut-across-internet-video-sources-with-one-ui/article/chime-tvs-subject-based-channels-cut-across-internet-video-sources-with-one-ui/article/chime-tvs-subject-based-channels-cut-across-internet-video-sources-with-one-ui/article/chime-tvs-subject-based-channels-cut-across-internet-video-sources-with-one-ui/article/chime-tvs-subject-based-channels-cut-across-internet-video-sources-with-one-ui/article/chime-tvs-subject-based-channels-cut-across-internet-video-sources-with-one-ui/article/chime-tvs-subject-based-channels-cut-across-internet-video-sources-with-one-ui/article/chime-tvs-subject-based-channels-cut-across-internet-video-sources-with-one-ui/article/chime-tvs-subject-based-channels-cut-across-internet-video-sources-with-one-ui/article/chime-tvs-subject-based-channels-cut-across-internet-video-sources-with-one-ui/article/chime-tvs-subject-based-channels-cut-across-internet-video-sources-with-one-ui/article/chime-tvs-subject-based-channels-cut-across-internet-with-one-ui/article/chime-tvs-subject-based-channels-cut-across-internet-with-one-ui/article/chime-tvs-subject-based-channels-channels-chime-two-across-internet-with-one-ui/article/chime-two-across-internet-with-one-ui/article/chime-two-across-internet-with-one-ui/article/chime-two-across-internet-with-one-ui/article/chime-two-across-internet-with-one-ui/article/chime-two-across-internet-with-one-ui/article/chime-two-across-internet-with-one-ui/article/chime-two-across-internet-with-one-ui/article/chime-two-across-internet-with-one-ui/article/chime-two-across-internet-with-one-ui/article/chime-two-across-internet-with-on$ 

**EDUCATION** 

# B.S., Computer Science; B.A., Economics (Honors); Minor Mathematics

Rutgers University, New Brunswick NJ, May 2004. Seven-time Merit Scholarship Recipient.

Cumulative GPA: 3.9. Comp Sci. GPA: 4.0.

University Honors Program; Dean's List for seven consecutive semesters: Fall 2000 - Fall 2003.

#### INTERACTIVE PROIECTS

Portfolio: https://chir.ag/projects

ZetaBee.com

ZetaBee is a collection of original apps developed using PHP, JavaScript, and HTML5 technologies:

- *Email-to-Voice*: Calls your phone and reads out important emails automatically
- Text: Organize your thoughts, plan complex things, make outlines easily
- *Cash Flow*: Plan your future cash-flow and review your projected finances
- iCal JS Embed: Embed upcoming events from Google Calendar & Facebook on any site

Tag Cloud

US Presidential Interactive application that shows the popularity, frequency, and trends in the usages of words within speeches, official documents, declarations, and letters written by US Presidents. Wall Street Journal interview: https://www.wsj.com/articles/SB116944313108983522

Drop Search Library Drop Search makes it easy to add a powerful search box to any site; uses Google AJAX Search API. Google interview: https://googlecode.blogspot.com/2009/04/google-narratives-series-chirag-mehta.html

Comp. Sci. Research: Footfall Synthesis

Worked with Professor Dinesh Pai at Rutgers University on Real-time audio synthesis, paper titled "Real-time Synthesis of Footfall Sounds on Sand and Snow. and Wood."

*Tip of My Tongue* Web, iPad, and iPhone iOS app to help users search for words in a dictionary by setting filters.

PDFB Barcode Library PDFB enables PHP developers to generate PDFs with barcodes in 3 of 9, 128, 2/5, and UPC formats.