**LINGJIAO (LING) CHEN**

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**QUALIFICATIONS**:

Mr. Ling Chen specializes in providing software architecture, design, development, and management solutions ranging from building Integrated Enterprise Systems deployed within cloud-like environments across various government agencies to lean applications catered towards smaller businesses.   
  
He is detail oriented and self-driven in analytic problem solving, as well as working/leading development teams within high demanding agile environments. His background knowledge consists of technical management, solid business process modeling, enterprise architectures, various modern & agile software development\methodologies, various development lifecycles, and over twelve years of experience in various development languages, frontend\backend frameworks, and software tools. Mr. Chen’s leadership, interpersonal communication, and teamwork skills are complimented by his ability to learn and adapt to new environments quickly and independently.  
  
His most current projects involved supporting AOC/NREL in building an enterprise system that collects and track energy purchased, generated or exported. In turn providing real-time visual analytics for conducting both historic and current consumptions. Other most recent projects involved supporting DIA/DI in building secured cloud-based data environment that is multidimensional-modeled storage repository. In addition building a suite of applications for the Enterprise on top of the platform - similar to Google suite of applications for the IC. Other past projects involved supporting the IC developing mission critical social business platform called Analytic Space (A-Space/i-Space) that was named one of the Top 50 inventions of 2008 by Times magazine.

**EXPERIENCE**

**BIT SYSTEMS** *March 2015 - PRESENT*

***Sr. Principal Engineer***

* + - Re-architected and contributed to the implementation/refactoring of legacy system to converge to scaling more horizontally with proper load balancing and fail over capabilities.
    - Integrated, tuned, and configured new **Solr Cloud** to improve Enterprise search capabilities.
    - Designed and refactored backend Search API to be more federated with external systems as well as more agnostic to vendor specific search engines.
    - Integrated and configured new **Zookeeper Ensemble**.
    - Re-engineered/replaced legacy backend data pipeline ingestion to various topologies run on **Storm** clusterwith **Kafka** as the message bus.
    - Integrated and configured **Redis** cluster to leverage/improve caching capabilities.
    - Re-architected and implemented new light weight application that is stateless and can be scaled horizontally in replacement of the GWT legacy system using **AngularJS**
    - Implemented backend recovery ingestion pipeline processes to perform **ETL** from database to Solr.
    - Re-engineered and integrated Websocket protocol to replace legacy long polling in efforts to improve real time streaming capabilities to legacy/lite application.
    - Re-engineered team's build process. Converged from SVN to Git repository. Mavenized legacy codebase replacing Ant. Continuing efforts to having more Continuous Integration environment.

**SIX3SYSTEMS** *November 2011 – March 2015*

***Development/Technical Lead Engineer***

* Provided technical direction and governance for rapid development process and multiple teams.
* Instituted various software development methodologies, best practices, alternative solutions, frameworks for building and releasing rapid software deliveries.
* Oversaw development across multiple teams and ensured cross team collaborations/communications.
* Architected and implemented remote servers automation and deployment strategies (via **Capistrano**) standardized across all web application projects.
* Managed and oversaw all scheduled release deployments.
* Led the development and execution of **BEDROCK,** which is a secured cloud-based data environment with high confidentiality to create a centralized Need To Protect (NTP) data layer and service for analytics.
  + Managed/built/maintained all Bedrock servers infrastructure platform. Stack spread across 20+ servers consisted of **HAProxy, HTTPDs/Passengers, Tomcat, JBoss, MongoDBs nodes, Elastic Search nodes, Redis, Ingest Pipelines**.
  + Contributed to the Designs/Development of a multidimensional-model data layer that’s used as the storage repository (stored in **MongoDB** cluster) of historical, cleansed, validated, synthesized, operative, structured, unstructured, internal, and external data. Building the foundation of suite of analytics tools.
  + Contributed to the design/development of exposing the Bedrock API layer as RESTful services; creating an ecosystems for Bedrock applications and also external 3rd party systems within the Enterprise IC to interface against (service layer written in **Java** using **RESTEasy** deployed to **JBoss** cluster).
  + Integrated/implemented search performance/caching solutions using **ElasticSearch** and **Redis**.
  + Designed/developed of a full audit capability.
* Led the development and execution for building suite of tools integrated on top of BEDROCK platform. Developed frontend application written in **Ruby on Rails** and **AngularJS/NodeJS** w/the integration of other frameworks (i.e. **jQuery, Bootstrap UI, CoffeeScript, Sass**, **D3js**, etc.) for enriching the UI.
  + **Shoebox**
    - Contributed to the development of Shoebox app. Inspired by leading commercial applications such as Box, Dropbox, and Google Drive. Shoebox is a fully secured storage module that allows users to access their data on secured networks regardless of their physical location.
    - Integrated/implemented CAPCO editor for allowing users to classify uploaded data objects.
    - Designed/implemented search performance/caching solutions using **ElasticSearch** and **Redis**.
    - Designed/developed sharing solutions that allow users to designate documents & folders as private, as shared among specific individuals or groups, as or publicly available.
  + **Taskers**
    - Led the development for building a tasking appl that enables full transparency across the Agency by using configurable tasking forms and organization structures. It provides users with ability to create/modify/track/archive tasks internally and externally as their missions dictates.
    - Developed dynamic form builder tool that allowed administrators to create/manage dynamic forms specific to their projects and missions.
    - Integrated/implemented CAPCO editor for allowing users to classify content down to the individual field level. Developed filtering logic to ensure users are users are allowed to see only what they have access to.
    - Developed audit/history capabilities on Tasks created/managed
    - Developed metrics dashboard (using **D3js**) for allowing users/administrators to view performance against individual user and/or organization.
    - Developed Shoebox picker that allowed users to upload files to a task from their own Shoebox.
  + **Today**
    - Led the development for building app similar to CNN that allows analysts to access latest record message traffic. It allows users to view message of relevance to their specific mission areas of interest.
  + **Discovery**
    - Contributed the building the search engine (using **ElasticSearch**) that provided users the ability to search across all Bedrock applications and data therein. It allows multi-facets, filtered, sorted results for users to seamlessly & effortlessly refine search results.
  + **Watchdog**
    - Contributed in building a tool that allows analysts to build/collect/analyze data on areas of interest. Implemented/integrated to a **Graphing DB** with Ontology layer on top.

**LJ SOLUTIONS LLC** *August 2010 -- PRESENT*

*President/Lead Developer*

* Managed and mentored a small team of developers on the AOC/NREL projects.
* Architected and led the development of an online enterprise-wide multi-tenant system to collect and track all energy purchased, generated or exported for various government agencies/customers (built in **Groovy/Grails**).
* Architected, developed, and integrated real time enterprise multi-tenant utility metering analytics dashboard (built in **D3JS** and **Sencha/ExtJS** frameworks) that permits analysts to conduct both historical and current consumption analysis, track energy flows and monitor results of efforts to reduce energy consumption. This system is also used to minimize carbon footprint and to support the conservation of water, portable and run-off if used for landscape management.
* Designed and developed a mobile (profiled for iPads and various Android devices) version of the analytic dashboard (built in **Sencha Touch** framework).
* Architected and built server/platform infrastructure for hosting test and production environments.
* Implemented Continuous Integration (CI) solutions and automated builds to better streamline and QA developed product (via **Jenkins** and **Bash** scripting).
* Designed and implemented Service Oriented Architecture (**SOA**) for ingesting and exporting data between various external utility metering systems.
* Design and implemented data model for UMES

**NAVSTAR INC. (INTELLIGENCE COMMUNITY)** *February 2010 – November 2012*

*Senior Lead Engineer/Developer/Scrum Master*

* Maintained Mac OSX development environment distributions for the entire A-Space development team (Software and Hardware).
* Proposed and implemented architectural blueprint designs\changes for entire A-Space build process (using **Maven**, **Cargo**, **Bamboo**, **SVN**, and **JIRA**) to accommodate the latest evolving project states.
* Currently leading a small core team (1 of 3) as **Scrum Master** and senior lead developer.
* Mentored colleagues on various development efforts in best practices, alternative solutions, frameworks, and methodologies. Established code review amongst peers into development workflow via **Crucible**.
* Presented frequent tech talks to team on new technologies\frameworks that can possibly be beneficial to the team development, adopting agile practices in picking the best solution possible to solve complex requirements.
* Led the design and development for creating a web-based chat capabilities (like Facebook and Google Chat) from within A-Space (**JWChat, JSJAC, XMPP**); integrating with backend **Openfire** chat server
* Engineered and maintained backend infrastructure in supporting A-Space in a Load Balanced\Clustered\Cached environment.
* Developed **two-way-SSL** capabilities for backend server-to-server communications in order to comply with A-Space security infrastructure.
* Frequently assisted in release deployments on the high-side (SCIF).
* Led the architectural design and execution in development for a decoupled advanced CAPCO\Metadata wizard (**ExtJS** frontend, **jQuery** DOM manipulation, **JAX-RS** webservices backend) plugin used to classify all contents created\socialized within A-Space.
* Led the design and execution in development for the Analytic Transformation Search application consuming and aggregating source from **Intel Community Data Layer (ICDL).** Frontend developed entirely via **ExtJS** integrated to **Jackbe** **Presto Mashlets**. Developed backend webservices via **EMML\XML\XSLT** integrated to **Presto Mashups**.
* Led the design and execution in development for integrating Intel Community Data Layer **(ICDL)** as part of A-Space’s internal search engine for consuming **ICDL** and Library of National Intelligence **(LNI)** data.
* Designed and developed various A-Space featured components as **OpenSocial gadgets** that can be integrated and dropped into other classified enterprise systems supporting the OpenSocial container.
* Designed and developed various A-Space featured components as **Ozone widgets** (OWF) that could be integrated and dropped into other classified enterprise systems supporting the Ozone container.
* Led the design and development efforts to provide web services supporting various frontend widgets, complying with the Internal Search & Discovery Specs. Using **JAX-RS, JAX-WS, Apache CXF, and Apache.**
* Contributed in architecting\implementing overall infrastructure providing capabilities for A-Space to be exposed, integrated, and share data with classified enterprise systems and environments.
* Designed and developed custom plugins\extensions on top of enterprise Jive SBS to provide customized software solutions for A-Space social platform.

**TCG (EXECUTIVE OFFICE OF THE PRESIDENT)** *October 2006 – February 2010*

*Senior Lead Engineer/Developer*

* Led the design, development, and maintenance operations for critical eGov Federal Budget Formulation & Execution system called MAX Apportionment System – currently on it’s second lifecycle.
* Collaborated & engaged work onsite at the Executive Office, OMB with the client in 1) carrying out day-to-day system operations 2) discussing upcoming line of business & requirements gathering 3) leading the execution in development for enhancements\updates scheduled for upcoming releases.
* Designed, developed, and maintained J2EE system with capabilities of handling heavy generation, processing, and validation of complex budget formulations excel workbooks, submitted from all government agencies using **Apache POI** technology.
* Proposed architectural design and led the execution of development for the **Electronic Approval Signature System;** enhancing the Federal Budget Formulation\Execution process for all government agencies with capabilities to electronically signing and approving agency budget requests prior to Congressional Review.
* Responsible for all maintenance\major build releases for testing, staging, and production environment platforms.
* Proposed architectural design and led development for system security infrastructure assessment; integrated Central Authentication Service client for the system, customizing authentication & authorization with the MAX Federal Central Authentication Service Portal.
* Proposed design approach and lead the execution in development for framework assessment; migrated entire project code built on Struts over to **Spring** v3 framework.
* Integrated JQuery framework along with Tiles and Velocity enhancing user interface.

**CLOUNOVATIONS LLC** *December 2007 – August 2010*

*President & CEO*

* Founder of information technology services firm specializing in custom software development for small agile businesses.
* Serve as acting CTO for the company exploring bleeding-edge business technologies\practices; applying technical solutions to small business needs.
* Served as software engineer for building\maintaining an energy utilities management dashboard (written in **ExtJS4**) for one of Department of Energy’s power plant (NREL site).
* Served as a software engineer for building an energy utilities management dashboard (written in **ExtJS4**) for Architect of the Capitol (AOC), Washington D.C.
* Served as a consultant and engineer for PMEI, Inc. to assist in building up their internal technology infrastructure stack (Git, Hudson, Redmine, Devl\Stage\Prod env, etc.) in order to expand their development shop for upcoming awarded project contract.
* Served as a software consultant for small business\organization providing strategy plans & implementations to expand their business capabilities from a technology infrastructural standpoint.
* Served as a software engineer for LavishVIPServices entertainment firm; redesigned and revamped their advertisement site expanding the company’s business capabilities via web.
* Served as a software engineer for ChicagoHokies Alumni Associations; assisted in design and developed a custom Content Management System for the organization.
* Provided services for building custom virtual hosting servers (slices) for small businesses tailored to client’s needs.
* Provided services for SEO consultations.

**BOOZ ALLEN HAMILTON (U.S. NAVY & AIR FORCE COMM.)** *May 2005 – October 2006*

*Software Consultant/Engineer*

* Assisted in development & research in formulating a Strategic Procedural Standard Model for various ways of securely destroying and disposing sensitive classified electronic hardware materials for National Institute of Standards and Technology (NIST).
* Designed & developed extraction tool suite for data mining selective data in large DoD document repositories; using XML and various modern technologies (Altova XMLSpy & MapForce).
* Assisted in design & development of custom standalone dashboard operation plugin platforms for various modern J2EE enterprise systems for DoD using **Spring Framework**.
* Integrated and maintained Hibernate services bridging databases backend with J2EE platforms.
* Designed, developed, and integrated security infrastructure for **J2EE** **DoD** enterprise systems using **Spring Security Framework**.
* Collaborated with DBA team members in maintaining Oracle 9i/10g database & table schemas based upon client requirements.

**SOFTWARE ENGINEERING TECHNOLOGIES, INC** *May 2004 – May 2005*

*Software Engineer*

* Assisted in design & development for software suite called VirtualPractice ([www.virtualpractice.com](http://www.virtualpractice.com)) providing solutions for managing single/multi office medical practices (Ophthalmic, Audiology & Pediatric practices)
* Designed and developed legacy integration rewrite from Visual Basic C++ to .NET C#.
* Consulted and worked with professional Optometrists one-on-one to design & develop Electronic Spectacles/Contact lens RX inventory tracking system.

**RELION, INC** *January 2004 – April 2005*

*Software Engineer/Consultant*

* Designed, developed, and coded custom software solutions in Java specialized in e-commerce system for medical diabetic products.
* Designed and developed online custom collaboration tool suite in Java and C++ to assist backend administrative management.

**C-SQ2**  *September 2001 – May 2003*

*Software Developer Intern*

* Developed and coded custom database management platform tool suite in C++ for Department of Motor Vehicles.
* Developed and coded shuttle services simulation system in C++ for Department of Motor Vehicles.

**EDUCATION**

**VIRGINIA TECH** Blacksburg, VA

Bachelors of Science and Technology ***August 2001 – December 2005***

**Major**: Computer Science

**Minor**: Mathematics and Economics

**TECHNICAL SKILLS ACCUMULATED FROM PAST PROJECTS (*Over twelve years)***

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| **Languages Experiences** | Java (J2EE), Ruby, Groovy, C#, C++, C, Visual C++, Objective C, JavaScript (Functional and Object Oriented), CoffeeScript, Sass, HTML, XML, JSON, SQL, SASS, CSS, Bash |
| **Backend/Middleware Development Frameworks** | Nodejs, RESTEasy, Spring (2.5.x, 3.0.x, 4.2.x), Struts (1.x, 2.x), .NET, iPhone SDK, JAX-RS, JAX-WS, Apache CXF, Apache Camel, Storm, Quartz, Akka, ActiveMQ, Kafka |
| **Frontend Development Frameworks** | Rails, Grails, AngularJS, ExpressJS, Nodejs, Bootstrap UI, BluePrint CSS, OWF, D3js, ExtJS, ExtGWT, jQuery, Prototype, Tiles, Velocity, Freemarker, Merb |
| **Community Widget Framework** | OWF, Sencha, JackBe Presto, OpenSocial |
| **Development Tools** | Eclipse, NetBeans, .NET, TextMate, IntelliJ, RubyMine, Sublime, Spring Tool Suite, Maven, Ant, LuntBuild, Capistrano, Cruise Control, Basamiq Mockup, Cargo, ExtJS Designer |
| **Database Systems** | MongoDB, Neo4J, Postgres, MySQL, IBM DB2, Oracle, SQL Server |
| **Database Management Tools** | pgAdmin, Quest Central Suite, Toad, MySQL Suite |
| **Revision\Source Control** | Git/GitFlow, SVN, CVS |
| **CMS\CRM** | JIRA, Crucible, Bamboo, Bugzilla, Atlassian Enterprise Confluence, WordPress, Redmine, GitLab |
| **Web Servers\Platform Infrastructure** | HaProxy, F5, HTTPD/Passenger Enterprise, NodeJS, Nginx, JBoss, Tomcat, Resin,, Jetty, WebSphere, Openfire Chat Server |
| **Groupware** | Google Hangout, Jabber, MS Exchange\Outlook, Lotus Notes, DimDim Meeting, iPortal, Acrobat Meeting, SameTime, Openfire |
| **Social Business Software (SBS)** | Jive 2.5.x, 4.0.x, 4.5.x, 5.x |
| **Search Optimization/Cache** | ElasticSearch, Redis, Solr Cloud |
| **Testing Frameworks (TDD/BDD)** | JUnit, Jasmine, Cucumber |

**LANGUAGES**

* Native Fluency in English; Excellent Proficiency in Chinese

**CERTIFICATIONS**

* Certified Scrum Master

**CLEARANCE**

* DoD TS/SCI w/CI Poly (**Currently Active**)