JOUBIN HOUSHYAR

alphazero@sensesay.net

PROFILE

Highly creative, intuitive, and articulate individual, informed by the analytical rigor of an engineer and disciplined creativity of an architect; Strong multi-disciplinary skills, resources, and interests; Exceptional learning and teaching abilities; Strategic visionary with practical mindset. A software craftsman dedicated to attaining the personal goal of software mastery. I thrive and excel in dynamic meritocratic environments and the company of talented and challenging colleagues. F/OSS developer.

EDUCATION

RENSSELAER POLYTECHNIC INSTITUTE, ECSE

Troy, NY — BSEE, 1987

COLUMBIA UNIVERSITY, GSAPP

New York NY — Master of Architecture Studies (MArch), 1994*

SKILLS & FOCUS

My technical focus in the early part of my career was OOD, component orientation, and general software architecture, applied to the development of software for a wide range of domains. My current strong interest and focus is distributed, concurrent, & highly scalable and available systems, NoSQL stores, concurrency in context of multi-core, and distributed data stores. My private research & development activity is distributed queues & content addressable stores, in pursuit of the unicorn of JIT data at scale.

In the distant past I developed extensively in C/C++, and before that FORTRAN. Since the inception of Java, I have developed & designed primarily for Java (JSE and JEE) and JVM and have deep and wide experience with the platform & related technologies. My professional choice for developing systems at scale has been and remains compiled languages, but I also appreciate the utility of dynamic languages and have developed small scripting languages for various projects. Beyond the JVM ecosphere, I am quite fluent with & have actively developed in Go since its initial public release. In context of operating systems, I have developed for VMS, OS/2, *nix, and these days primarily develop on OS/X for either JVM or POSIX (Go). I have also developed in the past for C#, Ruby, and Python for very specific short term projects. Have played with SmallTalk, OCaml, Clojure, and Haskell in non-professional context.

I have designed & implemented data architecture & models utilizing Relational, OODB, Graph, and weak/KV-schemas (noSQL) and have a strong facility for capturing domain essentials in architectural design. While high-level software architecture is a strong suite, I equally enjoy writing low-level e.g. TCP/IP driver code and cryptographic hashes. I very much like Postgres, Redis, & Neo4j.

I actively contribute to OSS (time permitting) and am the founder and maintainer of 2 OSS client drivers for Redis: JRedis and Go-Redis. Fairly early adopter of Git & Github (https://github.com/alphazero) but o/c also experienced with earlier, e.g. Subversion, VCS software.

I code for fun and have been doing so since I was 16 (writing games for my TI 99-4A with Extended Basic) and having internalized essential fundamentals, scaling steep curves of new technologies is a non-issue. My personal preference is to think before I design & code but am flexible. I think it fair and accurate to characterize myself as an inventor and a thought leader.

PERSONAL

Interests and activities outside of software include architecture, design, painting, and writing poetry and short stories. I read extensively & remain a perpetual student and seeker of knowledge. I draw and doodle compulsively. Socially responsible application of technology and Family and personal time are quite important to me.

United States citizen. NYC resident. Fluent in English and Persian, and comfortable in diverse cultural settings.

BROOKLYN, NY 11237

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EXPERIENCE

INDEPENDENT CONSULTANT / PERSONAL RESEARCH
New York, NY *2013-prsent*
Continuation of personal work on a distributed content addressable temporal data store (Atomic, not yet published) and various minor projects as consultant, in Java and Go.

TECH LEAD / SENIOR ENGINEER
Gracious Eloise, New York, NY *February - September 2013*
During my tenure with Gracious Eloise, I substantially rewrote the existing Java based handwriting rendering server, resulting in order of magnitude performance improvements; made substantial and critical input in the technical domain of handwriting recognition & feature extraction; spearheaded the overhaul of the (legacy) system design; designed a comprehensive and modular service-oriented (RESTful) architecture to address near and mid-term company goals; directed and supervised the modularization of existing Mathematica codebase; and designed and implemented a coherent, systemic, and extensible (content addressable) domain schema on Postgres 9.3 (PLPGSQL); and provided significant and critical input to the executive team on the technical strategic roadmap for the company.

PSEUDO-SABBATICAL/PERSONAL RESEARCH
New York, NY *2011 - 2012*
After my tenure at Thumbtack, I spent a bit over a year researching and experimenting with the design of highly scalable distributed backends, with specific focus on semantic/content addressable memory models and optimization of (CPU) cache utilization techniques in context of concurrency, multicore, and distributed computation and persistence. I also took the available time to resume work on my OSS projects and other (art related) personal projects.

CHIEF ARCHITECT
Thumbtack Technologies, New York, NY *April 2010 - October 2011*
I fulfilled a variety of roles at Thumbtack, ranging from technical leadership to active engagement in business development, talent recruitment, and the development of internal operations and methodologies, as a member of the executive team. I was a key member of the NY Times' Satre SOA e-Commerce Platform architecture team; lead the design and development of Sartre Core; designed the core API; implemented the CryptService key management and rotation system; and designed and supervised the implementation of the Cucumber/JRuby BDD testing platform for Sarte. I also designed and prototyped (Neo4j) NYT's new Asset Management System. I conducted the technical evaluation of Barnes and Noble's .NET e-Commerce platform; and implemented a p.o.c. for a financial modeling application with R front-end and Redis backend. Provided the technical matter and high level design for various client RFPs.

OSS DEVELOPMENT / INDEPENDENT CONSULTANT
Fairfax, VA *2008 - 2010*
I am the founder & principal developer of JRedis and Go-Redis -- high performance OSS Java and Go clients for Redis NoSQL K/V store. (JRedis was in use, as of 2011, in a critical path pipeline in Twitter's infrastructure.) As a consultant in capacity of lead engineer, I clarified and enhanced an existing (classified) prototype Java/Weka agent-based evolutionary (genetic algorithm) bayesian corrxuption model and created a simple but effective (AWS) cloud based framework for the deployment and distributed processing of the extant single node prototype. This period is the commencement of my shift of focus to OSS, NoSQL, and scalable and high performance distributed back-ends (at the architecture level) and concurrency and multicore (with a focus on JVM and j.u.c.)

PRINCIPAL CONSULTANT
Ponvia, New York, NY *2006-2008*
I provided on-site software development and architecture design services for Ponvia client MLB.com. After conducting an in-depth immersive 3 month study of (multimedia) engineering operations, I conceived the ("impossible") domain model of a unified capability based (soft realtime) provisioning model for MLB's complex content and media processing pipelines. I also maintained and enhanced extant Java based tools and micro-web apps of the multimedia group, GUI (Swing) control apps, and the web-container based backends. (Web-JEE).

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MANAGING CONSULTANT
Headstrong, New York, NY *2005-2006*
As managing consultant I provided technical leadership and oversight on a variety of Java & C#/.NET client engagements. I worked with principal (financial domain) experts at Headstrong to craft detailed

technical proposals and develop platforms and solutions. I was a founding member of Headstrong's RnD group with research efforts focused on developing a (RAD) component oriented software development process for our engagements. I lead teams that conducted comprehensive technical audits of client systems, and was a member of the senior team overseeing the enterprise-wide transit to component orientation of a major financial institution.

INDEPENDENT CONSULTANT
Independent Consultant, Various locations, mainly NY and VA *1992-2005*
An accidental consulting practice that ultimately settled in the enterprise tiers, initially in C++ and from '96 primarily focused on Java and JVM ecosystem with a brief RoR excursion.

Highlights of this period are the design & implementation of a (C++/OS2) fault-tolerant async multi-threaded optical image server and independent discovery of a basic Actor model (Sigma Imaging, '92) as my first encounter with multithreaded/concurrent software; an original conception & development of an IoC container, GC'd and context-based runtime, & a simple DSL scripting language for a dynamically scriptable C++ personalization web server (NeoGraphic, '95).

During this period, as a personal effort, invented and filed a PPA for an overlay social network providing presence & identity management (SenseSay, '96). Included in this period are various (and fairly typical) mix of J2SE, and JEE enterprise applications with the attendant mix of frameworks and topologies (e.g. JMS based messaging and/or C/S), progressing from Swing fat clients to the current paradigm of Web based UIs. Database backends were the (then) typical mix of SYBASE and ORACLE accessed via JDBC and rudimentary ORMs.

INTEGRATED LASTER TECHNOLOGIES
Software Architect, New York, New York, NY *1989-1991*
As the de-facto (if not official) CTO of this small startup, I designed, and implemented in part (VMS side) an optical image microfiche platform for ILT's clients Chemical Bank and Apple Bank. Hands on contributions beyond the C/VMS backend was the implementation of the TTT-based connectivity between Windows based front-end and the optical imaging system. Responsibilities included interfacing with senior stakeholders at client firms, and internal oversight and management of our small development team.

SOFTWARE TRANSLATIONS
Software Engineer, Troy, New York, NY *1986-1988*
Working closely with the CEO of this RPI-incubated startup, as my first professional software development position, I designed and implemented a (FORTRAN/C) extensible table-driven pen-based GUI front-end for ST's Jet Engine Turbine CAD system for client General Electric. I also contributed to ST's automatic FORTRN to C software translation system.