Jeremiah Kent

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Objective:
 I am looking for a position developing software according to appropriate best practices and architecture patterns, including modern architecture and life cycles, and guiding a team in those practices.

Education:
- *B.S. Electrical Engineering*
University of California, Riverside

Proficiencies:
- JavaScript, TypeScript, Node.js, Apollo, React, React Native, Redux, MobX
- Python, Kotlin, Spring Boot, RDBMS/SQL, MongoDB
- CI, CD, Containers, Microservices, Kubernetes, AWS
- UNIX, Linux, Web, Mobile, Desktop, Cloud
- (see last page for detailed/ranked list)

Work Experience:
- *Staff Software Engineer*, Intuit Inc., Jan 2021 to Feb 2023
Led team developing and maintaining the core service used by a new product and new feature sets.
Developed Kotlin/Spring Boot service that interacted with internal services, external APIs, and Kafka peers to maintain the hub entities for the product. Used Node/React for other components.
Wrote run-the-business Runbook for the team, and helped junior engineers in on-call rotation as issues were surfaced, in triage, research, and planning/designing/working on solutions.
Developed project workflow document the team could use for each new feature and bug fix, to make sure all the SDLC considerations were evaluated before moving forward on each phase.
Developed and presented curricula for various learning topics, including Kotlin, Metrics/Cardinality considerations, and ISL, an internally-developed ETL scripting language.
Authored documents for cross-team review and consumption, including Root-Cause Analyses, Project Design Documents, Go/No-Go Checklists, Architecture References.
Created Documents and Diagrams for several existing systems, workflows, and integrations that were previously just kept as tribal knowledge.

- *Senior Software Engineer*, Zego Inc. (formerly PayLease), Oct 2018 to Jan 2021.
Worked maintaining legacy multi-framework PHP monolith.
Helped design and implement Stripe payments functionality to support international currencies and payments.
Participated in design, and led team in implementing, the company's first microservice cluster, for data import and integration. This was also a testbed for the company's cloud-hosted containerized deployments.
Designed, and guided team in implementing, a full-stack feature including a Kubernetes-hosted backend with database and cloud storage, integrations with internal and external APIs, web and mobile frontends, and email/sms/mobile end-user notifications.

• *Senior Software Engineer*, [Pathway Genomics](), Aug 2018 to Oct 2018.
Brought a report translation implementation from partial implementation to fully working with error handling and generalized logic, working with components in Symfony 4, Zend 1, and opaque apis.
Worked on a team bootstrapping a React-Native mobile app from scratch into a working demo that another team could build out from POC into a full product.
Helping build a new report generation and presentation engine as a replacement for the company's current web products, using Node.js and React.js

• *Senior Software Engineer, [American Addiction Centers]()*, Feb 2016 to Aug 2018.
Maintained Linux/Nginx/PostgreSQL/PHP stack for addiction treatment center directory API, including front-end site backing, facility search, content management, various paid services, reporting, etc.
Helped maintain 30+ front-end websites including rehabs.com and recovery.org, running heavily customized WordPress installations.
Helped port sites and internal services from various hosting into a full AWS environment, with gains in security, performance, consistency, flexibility, monitoring, backups, and maintainability.

• *Senior Software Engineer, [iStorage.com](),* July 2013 to Feb 2016, Partially Remote.
Maintained Linux-Apache-MySql-PHP (LAMP) stack for public web site, reporting backend, content management system, and several internal-use APIs.
Designed and implemented a full rewrite for all of the above using Symfony2 and PostgreSQL. Created C#.NET relays to more stably connect PHP to third-party SOAP/WCF and MSSQL services, and a Windows desktop notification system for Point-of-Sale machines at individual facilities.

• *Software Developer II, [General Atomics Aeronautical]()*, July 2008 to July 2013.
Composed software change documents, including high-level descriptions for customers, low-level descriptions for engineers, and tracing for requirements, rigor, reproducibility, and several layers of testing. Responsible for design, implementation, code review, testing, and meeting formal requirements on such changes.
Performed research to track down problems discovered in testing or in the field, and wrote reports on findings, to be evaluated for turning into software changes. Point-of-contact for two products, coordinating engineers in designing, merging, and testing the products' build for every iteration of the software suite.
Performed a design role in several new projects, designing formal code interfaces (ICDs), user interfaces, and code structure.

• *Lead Developer (Contract), [CrowdClock]()*, May 2012 to December 2012.
Developed the REST back-end API in PHP 5.3 for a social networking site. Worked to find and use best-practices for each problem area, including newer PHP features where applicable. Coordinated communication with front-end developers (iOS and Web) and maintained API docs for their reference.

• *Database Administrator (Engineer II), [Fanbox.com]()*, January 2008 to July 2008.
  Administered a network of SQL Server 2005 machines. Reviewed developer-submitted stored procedures for best practices and efficiency. Maintained indexes, data integrity, server performance, and backups. Maintained separate development, testing, QA, live (OLTP), and reporting environments. (C#, TSQL)

• *Software Developer*, [DataGenix](), March 2006 to September 2007.
  Developer: Insurance claims processing suite: C#.NET, Python, MSSQL.
  Designed a strong-encryption licensing system.

• *Grad. Student Researcher*, Ctr. for Environmental Research and Tech., UCR CE-CERT, Mar. to Sep. 2005.
   Developer: Shared Vehicle System. VB6, MS Access, GIS.
   In-vehicle system: Embedded C/C++, Hardware/wiring harnesses, custom PCB layout. Programmed with interfaces to GPS location receiver, GPRS cell communications, and vehicle CAN bus.
   System read vehicle status and controlled locking and ignition systems, communicating wirelessly with a remote backend system to control user access and usage monitoring for billing. System also coordinated a human tech who kept cars distributed geographically as needed for demand.

• *Failure Analysis Engineer (Engineer I)*, Quality Assurance Department, International Rectifier, Jan. to Jul. 2004.
   Performed analysis techniques on failed semiconductor devices: Electrical testing, X-ray and C-SAM imaging, chemical and mechanical decapsulation and delayering, optical and electron microscopy, and EDS material analysis.

• *Systems Administrator*, Center for Research in Intelligent Systems ("VISLAB"), UCR, Jul. to Oct.2002.
   Maintained mixed network: Accounts, email, support, backups, hardware setup and purchasing. SunOS/Windows workstations, Solaris server rack.

• *Assistant Systems Administrator and Research Assistant*, Dept. of Psychology, UCR, Jun. 1997 to Dec. 2000.
   Visual stimuli for psychology experiments: C, C++, OpenGL (Analyzed results in Statistica)
   Maintained network: Accounts, backups, installation, training: Windows NT 4, sgi.

Interests:
   • Programming Paradigms: Functional, Objective, Distributed, Cluster/Mesh
   • Language Engineering/Design: Grammar, Features, Trade-offs.

Personal Projects:
   • http://github.com/ibiwan
      • Regular Expression parser in C++
      • BigInt implementation in Swift
      • Budget tracker in Objective-C
      • Web-based JSON viewer/editor in Node.js
      • Reimplement "Reactor Idle" for my kids' iPads
      • Personal web site in modified Materialize.css

      • Web Comics review social media site in Django
      • Robot-programming language compiler in Python
      • HTTP Message Processor and Query Manager (to replace Postman usage)
      • Interactive model of Disneyland water marble sculpture since we couldn't visit during quarantine

   • Various one-offs in Perl, Python, Ruby, C, C++, Swift, JavaScript

Other:
   Security Clearance, SECRET, Not current.
   Received 4-year UC Regents Scholarship.
   Boy Scouts of America, Eagle Scout, awarded July 1997.
   Second language: Russian, 1 year immersion.

References: A*vailable upon request.*

Languages

- ♛C, ♙C++, STL, OpenGL
- C#, .NET
- Objective C, Swift, Cocoa
- ♛JavaScript/TypeScript
  Back-End:
  ♛Node.js, ♛Express.js, Nest.js, Next.js, ♟Apollo GraphQL
  Front-End: ♙Vue, ♛React JS, ♟React Native, ♛Redux, ♟MobX
- Python: ♟v2, ♙v3, ♙Django
- ♛PHP, ♛Symfony, ♙Laravel
- ♙Java, ♟Kotlin, ♙JVM, ♟Spring Boot
- Ruby, Ruby on Rails
- ♛HTML, ♟CSS
- ♙Bash, ♙Perl

Data Handling

- *RDBMS*: ♟OLTP, ♛MSSQL/SQL Server, ♛MySQL, ♛PostgreSQL, T-SQL
- *NoSQL*: ♛MongoDB, ♟Aggregation Pipeline, Atlas, ♙DynamoDB
- *Caching*: Redis, ♟Memcached, ♟Varnish
- *Streaming*: ♟Apache Kafka
- *Events*: SNS/SQS/RabbitMQ
- *Geographical*: GPS, GIS
- *Network*: ♛TCP, ♟UDP, GPRS, CAN Bus
- *Communications*: ♛Email, ♛SMS, ♟Mobile Notifications

Workflows

- ♛Docker, Docker-Compose
- ♟Kubernetes
- ♛Git Flow, ♛Pull Requests, ♟Trunk-Based Development
- ♟Jenkins, ArgoCD

Cloud

- *AWS*: ♟IAM, ♛EC2, EBS, ♛RDS, ♟EKS, ♟ELB, SNS, SQS, Lambda, ♙CloudFront, ♙ElastiCache, ♟DynamoDB, ♟CloudWatch

Environments

- *Web*: ♟LAMP, ♟LEMP, ♛MERN, ♟WAMP, ♟Apache, ♟Nginx, ♙IIS, ♛Servers, ♛Containers, ♟Cloud-Native
- *Back-End:* ♛Services, ♛APIs
- *Clients*: ♙Desktop Thin/Thick, ♛Web, ♙Mobile
- ♟Embedded, ♙IoT, ♟Microcontroller
- ♟Distributed/Mesh Computing
- ♟Analysis, ♟Reporting, ♛Metrics, ♛Monitoring

Tools

- ♛Git, Github
- ♙Performance Analysis
- ♛Splunk, ♙Prometheus, ♙Wavefront
- ♟JIRA, ♟Confluence

Regulations

- ♟Finance, PCI
- ♛Medical, HIPAA
- ♟Privacy, GDPR

Dev Patterns

- *APIs*: ♛REST, ♙SOAP/WSDL, ♛GraphQL, ♟Federation
- ♙CI/CD, ♟DevOps
- ♟Service Mesh
- ♛*Execution Environments*: Dev, Test/E2E, Staging, Prod
- ♟Functional Programming
- ♛Dependency Injection, ♛Hexagonal Architecture
- ♛Object-Oriented Programming
- *SDLC*: ♛Waterfall, ♛Scrum, ♛Sprint, ♛Kanban
- ♛Monolith, ♛Microservices, ♟Decomposition

Testing

- ♛Automated, ♟Manual, ♛Plans, ♛Unit, ♙TDD, ♙BDD, ♟End-to-End, ♟System, ♛Functional, Contract, ♟Regression
- ♛Mocking, VCR, ♟Jest, ♟JUnit

Roles

- ♛Team Lead / Tech Lead / Scrum Leader
- ♛Feature Architect/Designer, Project POC
- ♙Algorithm Developer
- ♛Peer Review, ♛Code Review
- ♟Customer Liason
- Training: ♛Materials Developer, ♛Trainer/Presenter
- ♛Interviewer
- ♙On-Call, ♛RTB, ♛Bug-Hunter
- Field Engineer
- ♛Calculus Tutor

Security

- *Privacy*
  ♛Encryption, PKE, ♟Cryptography, Hashing, ♟Steganography
- *Defense*
  ♙CSS/XSS, MitM, ♟Injection/Serialization, ♟OWASP/CVE, Patching
- *Authorization/Authentication*
  ♙OAuth2, SSL, SASL, ♛JWS/JWT, ♛ACL, ♛RBAC
- *Offense:* Capture-The-Flag, ♛National Cyber League
- *Security Clearance*: Secret level, not current