KEITH M CORBETT

Software Solutions and Data Engineer • Team Lead • Technical Communicator

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PROFESSIONAL EXPERIENCE

Experienced executive and team lead in software engineering, sales, and delivery. Expert designer and developer of data-based applications. Skilled manager of agile teams responsible for products and services at startups and mature companies. Accomplished delivery of backend systems, data pipelines, microservices, reactive systems, and extensible applications. Specialist in integrating linked data and rules engines for deterministic AI. Passionately bridges communication gaps between technical and non-technical audiences.

Special Form Software

Consultant

June 2024 – present

- ImageSnippets: Advising and collaborating on linked data projects. OWL/RDF, LLMs
- Knowledge Graph Conference: Collaborated with curriculum designers and content creators to *train builders and buyers* of innovative knowledge graph technologies. *Granted certificate as KG Builder* in the first cohort of the Knowledge Graph Certificate Program.

Fitch Solutions / dv01 — New York, NY Staff Engineer and Team Lead

February 2021 – June 2024

- Built processes and APIs to manage core metadata. Reduced client dataset onboarding time by 75%. Scala, PostgreSQL
- Designed an API gateway to unify metadata services, enabling seamless integration for schema upgrades. Spring Boot, OpenAPI, Flask
- Managed a cross-functional team responsible for change requests and sitewide production data migrations.
- Led project team to enhance big data pipelines for file ingestion and ETL/ELT. Scala, Python, GCP, BigQuery, SQL, dbt
- Achieved an 80% increase in data accuracy using entity resolution. Eliminated manual processes, *saving \$50K annually*.
- Collaborated with the data science team on MLOps to generate clean synthetic datasets for machine learning model development.
- Created MVP for ESG analysis and reporting by merging loan transactions with public reference data. Generated \$250K+ in ARR.
- Migrated databases from Azure to GCP to reduce cloud costs by 50% and improve efficiency by 300%. SQL Server, PostgreSQL

ReactiveCore Inc - New York, NY

Master Solutions Architect and Knowledge Engineer

May 2017 – February 2021

- Designed and implemented knowledge graphs to enhance accuracy and ensure regulatory compliance.
 Built deterministic AI systems powered by business process rules and ontologies. *OWL/RDF, OPS-5/Prolog*
- o Developed ETL streaming data pipelines, optimizing business processes and cutting costs. Scala, Python, Spark
- Managed pre- and post-sales engagements, *securing \$1MM+ in services revenue* and acquiring new business. Delivered client demos/POCs to secure contracts, including:
 - o For US Dept. of Veterans Affairs: Identified \$20MM cost-saving opportunity through opioid dispensing analysis.
 - o For US Defense Logistics Agency: Resolved SAP Logistics data discrepancies using NLP, entity resolution, and knowledge graph.
- Led **developer relations (DevRel).** Improved in-house expertise and client satisfaction.
 - o Collaborated with Gartner to position ReactiveCore in the emerging "Decision Intelligence" market.
 - o Mentored and trained knowledge engineers, formalizing in-house onboarding and client technical training.
 - o Created a technical curriculum and delivered webinars and documentation. DITA XML

Ciklum USA LLC — New York, NY Principal Technical Architect

May 2016 – April 2017

- Worked with the CTO to expand US sales and services. Led "Center of Excellence" to funnel and convert leads.
- Presented to CTOs, VPs, and IT at enterprise-scale companies. Published white papers, articles, and presentations.
- Built POC for IoT "smart piggy bank". C/C++, Raspberry Pi, Particle, AWS Lambda

Mphasis Inc — Princeton, NJ Principal Software Engineer

April 2015 – May 2016

- For JPMC: Built an application for global banking regulators on fraud detection and compliance, including KYC and AML.
 - o Developed data pipeline to ingest structured and unstructured transaction data and *generate knowledge graphs with validation*.
 - Built semantic models and AI/rules to populate knowledge graphs using complex business logic. OWL/RDF, Protégé, R2RML, Clojure
 Generated code to populate property graphs from unstructured text. Prolog
- Led developer operations (DevOps). Saved \$200K by deferred hiring of a specialist.

Plymouth Capital Management Advisors LLC - Rye Brook, NY

Consultant

January 2015 – March 2015

- Assisted VC partners in due diligence assessments of high-tech investments. Provided technical perspective to reduce risk.
- Advised against investment lacking technical merits and *saved the fund \$2MM*.

Nevo Inc. — Cambridge, MA

Senior Software Consultant

May 2012 – December 2014

- For Verisk Health: Renegotiated and extended services contract. *Expanded contract scope and built an onshore US team* (see below).
- For Harvard University: Reconciled discrepancy as perceived between subscription charges and usage.
- For Cambridge Semantics: Enhanced Anzo engine to handle regular expressions. Extended and tested semantic models. OWL/RDF

Clozure Associates — Somerville, MA Senior Software Consultant

February 2009 – May 2012

- For Verisk Health: US team lead and senior developer (2010-2012); carried over for Nevo Inc. (2012-2014)
 - o As a solo contractor, trained, mentored, and led an offshore team of 20 developers in Nepal.
 - o Converted clinical rules from legacy code to a DSL and rules-based expert system. KnowledgeWorks, Common Lisp
 - o Eliminated Visio diagrams and manual coding, resulting in easier maintenance, improved performance, and reduced downtime.
- o Integrated quality metrics with microservices architecture, enabling external teams to incorporate new features.
- For Applaud Mobile: Created iPhone social media apps for non-profit groups. *Joomla!* Innovative "no-code" solution (customizable and configurable) *reduced time-to-market* from months to days.

Verisign / m-Qube — Boston, MA Manager of Database Technologies

November 2004 – September 2008

Managed a team of DBAs and analysts responsible for the data warehouse and analytics datamarts.
 Identified and *recovered lost revenue streams* by analyzing network traffic, partner agreements, and financial data.

SPSS / NetGenesis — Cambridge, MA

Senior Software Engineer and Team Lead

July 1998—October 2004

• Led strategic projects team (conversions, Y2K, integration APIs); created *new revenue stream* worth \$1M/year

TECHNICAL SKILLS

Cloud/OS:	Google Cloud Platform, AWS, Microsoft Azure • Mac OS, Linux, Windows
PM:	Agile Scrum, Kanban, Scaled Agile (SAFe) • Atlassian JIRA, Confluence, Bamboo • Trello, Rally, Airtable
Languages:	Scala, Python, Java, JavaScript • Spring Boot, .NET • C, C++, C#, Objective C • Clojure, Common Lisp
IDEs:	IntelliJ IDEA, PyCharm, DataGrip • VS Code, Eclipse, Emacs • Jupyter, Databricks
Databases:	PostgreSQL, BigQuery, SQL Server, Oracle, MySQL, Cassandra • dbt, Tableau, Business Objects
KR/Rules:	OPS5, CLIPS, Prolog, Drools, Jess, KnowledgeWorks
Semantics:	OWL/RDF, R2RML, SPARQL • Protégé, VocBench • Stardog, neo4j, HBase, Cassandra, RDFox

EDUCATION

B.A. in English Literature and American Studies

Princeton University, Princeton, NJ

C.E. (Continuing Education) in Computer Science and Information Systems

U. Mass., Lowell, MA