

Mike Funk

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Objektwerks

2013 - Present | FL | Consultant | Scala Engineer ~ Design and build Scala distributed, web and desktop apps. [Scala 2/3, Spark, Swing, JFreeChart, Scala Native, ScalaFx, ScalaJs, Laminar, Akka, Akka-Http, Quill, PostgreSQL, uPickle, Zio, Sbt, Git] [Java 8/17, GraalVM]

Built prototypes and feature tests for Kotlin and Rust. [Kotlin, Arrow, Ktor, Exposed, Gradle] [Rust, Actix, Actix-Web, Hyper, Rocket, Tide, Reqwest, Rusqlite, Sqlx, Serde, Log4rs, Cargo]

- 2020 - 2021 | Objektwerks, FL | Open Source | Scala Engineer ~ Designed and built open source, cross-platform health charts desktop app, sourced by csv/txt files, targeting 11 charts. [Scala 2.13, Swing, JFreeCharts, Sbt, Git] (<https://github.com/objektwerks/healthcharts>)
- 2020 - 2021 | Baptist Health South Florida, Miami, FL | Consultant | Scala Engineer ~ Designed and built Spark Job with embedded Akka-Http rest server that processes diet data requests via a Spark cluster. SSL-enabled Akka-Http rest app. [Scala 2.12, Spark 3, Akka-Http 10, uPickle 1.2, Sbt, Git]
- 2020 | FormsLogic, Chicago, IL | Remote Consultant | Scala Engineer ~ Built new web service calls and enhanced pdf reports for a form-driven workflow app. [Scala 2.11, Play 2, Postgresql 9, Anorm, Jaspersoft Studio, Sbt, Git]
- 2020 | NYISO, Albany, NY | Remote Consultant | Scala Engineer ~ Built proprietary workflow-directed Spark batch jobs sourced, joined, transformed and sinked from and to multiple Delta Lake date partitioned parquet tables. [Scala 2.12, Spark 2.4, Delta Lake 0.5, Cats 2.1, AWS-S3, Sbt, Git]
- 2019 | Baptist Health South Florida, Miami, FL | Consultant | Scala Engineer ~ Designed and built Kafka-Spark-MapR streaming job; BlackBaud rest service; Cerner rest service; and multiple Spark-Hive ETL apps. [Scala 2.12, Spark 2.4, Hive 3, Akka-Http 10, ScalikeJdbc 3.4, uPickle 1.0, Sbt, Git, Azure]
- 2019 | Florida Blue, Jacksonville, FL | Consultant | Scala Engineer ~ Designed and built HBase-Rules-DB2 Spark pipeline on dataset of HBase row keys scanned pre-Spark session. HBase client, via distributed dataset foreach, gets Json by row key. Json is parsed into Scala and update rules applied to DB2 tables. [Scala 2.11, Spark 2.3, ScalikeJdbc, PlayJson, Sbt, Gradle, GitLab]
- 2018 | Starbucks, Seattle, WA | Consultant | Scala Engineer ~ Designed and built customer order history event-driven pipelines, defined by web service sources, event flows and web service sinks. Built custom Akka-Http directives and Scala-Xml bindings. [Scala 2.12, Azure EventHub, Circe 0.8, Cats 1.0, Cassandra 3.5, Sbt, Git]
- 2017 | Objektwerks, FL | Open Source | Scala Engineer ~ Designed and built open source, cross-platform homeschool management desktop app with H2 store. [Scala 2.13, ScalaFX 14-R19, H2, Sbt, Git] (<https://github.com/objektwerks/homeschool>)
- 2017 | Objektwerks, FL | Open Source | Scala Engineer ~ Designed and built open source, cross-platform pool management desktop app with H2 store. [Scala 2.13, ScalaFX 14-R19, H2, Sbt, Git] (<https://github.com/objektwerks/poolmate>)
- 2016 | Bottle Rocket, Addison, TX | Consultant | Scala Engineer ~ Designed and built MongoDB-Csv-Sftp-Smtp integration app for national fast-food chain. Closed multiple Jira tickets. [Scala 2.11, ReactiveMongo, Spray, Sbt, Git]
- 2016 | HERE, Chicago, IL | Consultant | Scala Engineer ~ Designed and built Akka cluster driven by RabbitMQ and dynamic cluster-aware master-worker actor pairs that validate map data consumed from an AWS-S3 service. Built map data store change listener; RabbitMQ connector; and Akka-Http and Akka-Streams queue routers. [Scala 2.11, PlayJSON, Sbt, Git]
- 2015 | Adjoy, Tampa, FL | Consultant | Scala Engineer ~ Designed and built Kafka-Spark-Cassandra prototypes. [Scala 2.11, Sbt, Git]
- 2015 | MetiStream, Washington, DC | Consultant | Scala Engineer ~ Designed and built Kafka-Spark-Cassandra ScalaFX simulator. [Scala 2.11, Sbt, Git]
- 2014 | Time Warner, Denver, CO | Consultant | Scala Engineer ~ Designed and built Kafka-Spark-Hdfs streaming prototype. [Scala 2.11, Sbt, Git]

Javawerks

1997 - 2012 | FL | Consultant | Java Engineer ~ Designed and built distributed, web and desktop Java apps and components. [Java 5, J2EE, Spring, Hibernate, Swing, Struts, Ant, Maven, SVN, Scrum]

- 2011 | Mad Mobile, FL | Startup | Java Engineer ~ Designed and built single page web app and NodeJs-websocket server, allowing for graphical selection of Html5 elements and construction of Css3 selectors, persisted in MongoDB as named queries, executable by remote mobile web clients for dynamic UI model-based rendering. Rebuilt with Java, JavaFX and Spring Rest due to browser constraints and JS performance and memory leak issues. [Java 7, JPA, Hibernate, H2, jQuery, Jsdom, Socket.io, Maven, Git]
- 2011 | Catalina Marketing, FL | Consultant | Java Engineer ~ Co-architected distributed hierarchical customer ID analytics solution using Pentaho and JAX-WS web services, targeting multiple enterprise data sources and sinks. Designed and built Hadoop prototype. [Java 6, Tomcat, Oracle, Spring, JPA, Hibernate, Axis2, Jibix, Maven, Jenkins, SVN]
- 2010 - 2011 | Disney World, FL | Consultant | Java Engineer ~ Implemented enhancements to J2EE room availability and inventory apps. Designed and built GWT inventory analysis client. [Java 5, JBoss, Oracle, Spring, JPA, Hibernate, RichFaces, Struts, Maven, Clearcase]
- 2009 - 2010 | NDR, FL | Consultant | Java Engineer ~ Designed and built Swing-Spring DI Historical Stock Screener client, composed of financial criteria, interactive models, charts and tables, Spring-Hibernate generic entity manager, JPA entities and Spring HttpInvoker services. Designed and built daily Russell Index service with Spring Batch, Spring-Hibernate generic entity manager, JPA entities and JMX attributes. [Java 6, Tomcat, SwingX, JFreeChart, POI, Ehcache, Maven, Nexus, Hudson, SVN]
- 2008 - 2009 | IHG, GA | Consultant | Java Engineer ~ Designed and built Spring-Hibernate generic entity manager, JPA/JAXB entities, MDPs, generic JAXB marshaller, pooled XSD validator/XSLT transformer, POX/JAX-WS/JMS services, JMX beans/aspects, JMS queue transferer and URI archiver. Designed and built ServiceMix, OSGi/SpringDM and Spring Integration prototypes. [Java 6, Groovy, Resin, Oracle, MQ, ActiveMQ, CXF, Quartz, Maven, Hudson, SVN, Scrum]
- 2008 | Disney World, FL | Consultant | Java Engineer ~ Designed and built Spring-JPA generic entity manager and JPA entities for J2EE reservation app. Designed and built inventory adjustment components, JAX-WS services, MDPs, JMX beans, JIBIX bindings, AOP retry strategies and auditors. [Java 5, JBoss, Oracle, Hibernate, Drools, MQ, CXF, Quartz, RichFaces, Maven, Scrum]
- 2007 | Qualcomm, CA | Consultant | Java Engineer ~ Designed and built Mule components, applications and POX web services for mobile billing integration with AT&T and Verizon. Designed and built JMX beans, AOP retry strategies and auditors. [Java 6, JBoss, Oracle, Oracle-JMS, Spring, XStream, Maven, SVN, Scrum]
- 2007 | FPL, FL, Consultant, Java Engineer : Designed and built Swing components and features for energy trading app. [Java 6, Tomcat, Oracle, SwingX, SVN]
- 2006 | CDC, GA | Consultant | Java Engineer ~ Designed and built Gigaspaces master-worker space composed of Spring beans that build composite reports via executors, callables and futures. Designed and built Terracotta prototype. [Java 5, Oracle, Maven, SVN]
- 2005 | KnowledgeStorm, GA | Consultant | Java Engineer ~ Designed and built J2EE app for lifecycle-management of Nutch-Lucene indexes across JBoss cluster via Swing-Spring DI client. AOP injected custom Nutch features. Designed and built Nutch sentence-fragment summarizer. Added compression/caching to Axis web service, yielding sub-second response times. [Java 5, Oracle, Hibernate, Maven, SVN, Scrum]
- 2005 | State Government, WA | Consultant | Java Engineer ~ Team-designed and -built J2EE criminal record web services. Built generic entity manager, entities and Swing-Hibernate query tool. [Java 5, JBoss, DB2, Axis, XStream, Maven, Perforce, CC, Scrum]
- 2004 - 2005 | MarketGrader, FL | Startup | Java Engineer ~ Designed and built J2EE stock report app, Swing client, Java2D Swing stock component and open source Quartz DailyCalendar. [Java 5, JBoss, MSSQL, DynamicPdf, S&P Xpressfeed, Ant, CVS, XP] (<https://tinyurl.com/y7frm74e>)
- 2004 | Fedex, FL | Consultant | Java Engineer ~ Designed and built JAXM web service to interoperate with IBM CICS, MQ and DB2. [Java, WebLogic, XmlBeans, Ant, CVS]
- 2004 | PWC, FL | Consultant | Java Engineer ~ Designed and built J2EE web app, allowing for development and lifecycle management of surveys, polls and tests. [Java, WebLogic, Oracle, Struts, Ant, CVS]

- 2003 - 2004 | Nielsen Media, FL | Employee | Java Engineer ~ Designed and built Swing TV programming applet, workflow components, auditing aspects and ILOG/JRules prototypes. [Java, Weblogic, Oracle, Ant, CVS, XP]
- 2002 - 2003 | US Navy, VA | Consultant | Java Engineer ~ Designed and built J2EE web app, allowing US Navy Seabees to manage global container logistics and integrate with US Navy accounting via POX web service. [Java, Jetty, MySQL, Struts, Castor, Ant, VSS]
- 2001 - 2002 | OTG, FL | Startup | Java Engineer ~ Team-designed and -built EAI product, composed of Jini services that execute integration components via JavaSpace messaging, lifecycle-managed by Swing client and Jini services. [Java, Tomcat, Ant, CVS, XP]
- 2000 - 2001 | BetweenMarkets, TX | Startup | Java Engineer ~ Team-designed and -built eMarketplace product, composed of Jini services that execute SOAP web services, lifecycle-managed by Swing client and Jini services. [Java, Tomcat, Ant, CVS, XP]
- 1999 - 2000 | Ariba, FL | Startup | Java Engineer ~ Team-designed and -built Ariba UDDI implementation in cooperation with IBM and Microsoft. Implemented Tradex product enhancements. [Java, Weblogic, Oracle, Ant, CVS]
- 1997 - 1999 | Identitech, FL | Consultant | Java Engineer ~ Designed and built Swing property sheet component, common property editors and RMI document management apps. [Java, MySQL, CVS]
- 1997 | Kinetoscope, FL | Startup | Java Engineer ~ Team-designed and -built market analysis tool, composed of AWT client, RMI server and ObjectStore database. [Java]
- 1993 - 1997 | FL | Consultant ~ C/C++, Visual C++, Visual Basic, Access, Delphi, PowerBuilder, SQL Server, Oracle

Skills ~ Scala - 8, Java - 16, Swing - 10, Spring - 8, Hibernate - 8, JPA - 6, Web - 4, Akka - 4, Akka-Http - 4, Spark - 2

Training ~ to include *but* not limited to:

- Scala and Functional Programming Essentials [Udemy: 2018]
- Advanced Scala and Functional Programming Essentials [Udemy: 2018]
- Machine Learning A-Z: Hands-on Python & R in Data Science [Udemy : 2018]
- Akka Essentials with Scala [Udemy: 2019]
- Apache Spark 3 and Big Data Essentials with Scala [Udemy: 2019]
- Spark Optimization with Scala [Rock the JVM: 2020]
- Spark Performance Tuning with Scala [Rock the JVM: 2020]
- Scala and Functional Programming Interview Practice [Rock the JVM: 2020]

Degree ~ University of Maryland | BA | Asian Studies, International Business

US Navy ~ Intelligence | Alaska, Diego Garcia, Guam, Japan, Washington D.C.

Laptop ~ Macbook Air 13", 16GB. Require similar model for work *with* Admin rights.

Environment ~ See the Environment section at github.com/objektwerks/scala for details.