

# Sandesh Devaraju

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## SUMMARY

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Seasoned functional programmer with over 10 years of industry experience. Proven track record of producing sound technical designs and leading projects to deliver robust scalable software. Strong analytical skills with an ability to thrive in fast-paced collaborative environments.

## EXPERIENCE

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- **Orchard Platform** *Apr 2016 - Present*  
*Senior Software Engineer* New York, NY
  - **Orchard Indexes:** A composable system tracking performance of the online lending marketplace. Supports multiple indexes and segmenting by various dimensions and filters. One such index tracking the performance of direct-to-consumer lending is available at <http://orchardindexes.com> and via Bloomberg (quote **ORCHLEND:IND**).
  - **Orchard Marketplace:** A secondary marketplace facilitating buying/selling pools of loans. Supports multiple deal types including auctions and direct deals.
- **AppNexus** *Jan 2012 - Mar 2016*  
*Senior Software Engineer* New York, NY
  - **Optimal Floors:** A system that dynamically adjusts reserve price at auction time to guarantee optimal Publisher RPMs. Streaming architecture backing an online machine learning algorithm facilitates service latency of 20ms and a model feedback loop of 30s (99th percentile).
  - **Viewable Transactions:** Prediction engine that determines the probability of a given advertisement placement being viewed by a human. Supports an elastic feature set and scaled to millions of placements.
  - **Work Queue:** Python implementation of a distributed task queue supporting sharding, aggregation, task dependencies, and reporting. Running hundreds of jobs in production daily.
- **kikin** *Apr 2009 - Dec 2011*  
*Software Engineer* New York, NY
  - **Social Search:** Scalable search infrastructure for per-user sandboxed social media streams (1.5M monthly actives).
  - **Analytics pipeline:** Big data pipeline for processing and analysis of application log data (30GB daily).
- **The Higher Gear Group** *Sep 2008 - Mar 2009*  
*Engineer* New York, NY
  - **Packager:** A packaging mechanism for programmatically composing software distributions.
  - **Continuous Integration:** Architected a distributed release management and build monitoring tool.
- **Monitor110** *Jun 2007 - Jun 2008*  
*Software Engineer* New York, NY
  - **Persistent Search:** Developed a system for user-defined persistent searches backed by a distributed RESTful service.
  - **Clustering:** Designed a scalable topic clustering algorithm based on semantic similarity.
  - **Search:** Formulated a custom search query DSL supporting boolean, wildcard and grouping operations.

## EDUCATION

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- **Master of Science in Computer Science** *Sep 2005 - May 2007*  
State University of New York Stony Brook, NY  
Research Assistant, Algorithms Laboratory
  - **Named Entity Recognition:** Built a Support Vector Machine based Named Entity Recognizer.
  - **Hierarchical Data Merge:** Formulated a mechanism for merging temporal databases with bounded sizing.

## SKILLS

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- **Languages:** Scala, Java, Python, SQL, JavaScript
- **Analysis:** Spark, Pandas, NumPy, SciPy
- **Tools:** Docker, Kubernetes, Hadoop, Kafka, Postgres, Vertica, AWS