

Vikram Sreekanti

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- EDUCATION**
- Ph.D. Candidate*, Computer Science August 2016 - Present
University of California, Berkeley
Advisor: Professor Joe Hellerstein
- Bachelor of Science*, Electrical Engineering & Computer Science May 2015
University of California, Berkeley
- RESEARCH EXPERIENCE**
- Graduate Student Researcher* August 2016 - Present
RISELab, U.C. Berkeley
- Research focus: autoscaling cloud infrastructure.
 - Exploring next-generation serverless infrastructure, focused on deployment and autoscaling of data-intensive applications.
 - Co-led development of the Anna KVS, which automatically responds to changes in workloads by changing resource allocation, migrating data between storage media, and selectively replication popular data.
 - Continuing work on the open-source Ground & Flor projects.
 - Exploring research avenues in data context for ML applications and systems infrastructure required to support large-scale data context services.
 - Mentoring undergraduates working on all of the above projects.
- Software Engineer; Researcher* June 2015 - August 2016
AMPLab, U.C. Berkeley
- Worked under Professor Joe Hellerstein on a data context services project called Ground.
 - Built a system from scratch that stores metadata about datasets, analytics workflows, and data lineage.
 - Designed and implemented a core data model and REST API in Java.
 - Independently drove the architecture and vision of the system based on feedback from interested users.
 - Explored various research avenues motivated by building this system.
- Research Assistant* August 2014 - May 2015
AMPLab, U.C. Berkeley
- Worked with Professor Mike Franklin on the Velox project, which efficiently serves trained machine learning models.
 - Designed a uniform storage API and implemented various storage backends.
 - Implemented a top- k functionality that recommends the k most preferred items for a particular user.
 - Integrated with the Vowpal Wabbit's counterfactual exploration tools.

INDUSTRY EXPERIENCE	<p><i>Software Engineering Intern</i> May 2014 - August 2014 Cloudera</p> <ul style="list-style-type: none"> • Summer intern on the Cloudera Manager team. • Developed an interactive shell for Cloudera Manager, enabling command-line interaction using a RESTful API. • Written in Java, the shell automatically detects and creates commands for all REST endpoints in the API using Java's Reflection library. As the API evolves, no new code will need to be written to update the shell. <p><i>SDE Intern</i> June 2013 - August 2013 Microsoft (Yammer)</p> <ul style="list-style-type: none"> • Summer intern on the Core Services team. • Developed a load- and performance-testing framework for internal, backend, HTTP-based services. • Developed in Java, the framework is highly configurable and allows for both production traffic replay as well as custom traffic generation. • Also provided data collection, analysis, and visualization.
PUBLICATIONS	<p><i>Serverless Computing: One Step Forward, Two Steps Back.</i> J.M. Hellerstein, J. Faleiro, J.E. Gonzalez, J. Schleier-Smith, V. Sreekanti, A. Tumanov, C. Wu. <i>CIDR 2019. To appear.</i></p> <p><i>Eliminating Boundaries in Cloud Storage with Anna.</i> C. Wu, V. Sreekanti, J.M. Hellerstein. <i>arXiv:1809.00089</i>. 2018.</p> <p><i>Context: The Missing Piece in the Machine Learning Lifecycle.</i> R. Garcia, V. Sreekanti, N. Yadwadkar, D. Crankshaw, J.E. Gonzalez, J.M. Hellerstein. <i>Common Model Infrastructure at KDD 2017</i>.</p> <p><i>Ground: A Data Context Service.</i> J.M. Hellerstein, V. Sreekanti, J.E. Gonzalez, et. al. <i>CIDR 2017</i>.</p>
TEACHING	<p><i>Teaching Assistant, CS 186 (Undergraduate Database Systems)</i> Fall 2016 U.C. Berkeley</p> <ul style="list-style-type: none"> • Head TA under visiting faculty, Karthik Ramasamy and Amit Shukla. • Led a group of 7 undergraduate TAs. • Re-designed course projects to have students build internal components of a traditional relational DBMS. • Wrote exams, managed TA development of homework, and handled class logistics. <p><i>Teaching Assistant, CS 186 (Undergraduate Database Systems)</i> Spring 2015 U.C. Berkeley</p> <ul style="list-style-type: none"> • Head TA under Professor Joe Hellerstein. • Received the Berkeley Outstanding GSI Award for my work this semester. • Student feedback rating: 4.6 out of 5. • Taught two discussion sections and held two office hours every week. • Developed two new assignments that added features to the SparkSQL query execution engine. The first assignment had students implement result caching for UDFs. The second was focused on implementing an asymmetric hash join algorithm.

- Helped write and grade exams.

Teaching Assistant, CS 186 (Undergraduate Database Systems)

Spring 2014

- TA under visiting Professor Dan Olteanu.
- Student feedback rating: 4.2 out of 5.
- Taught one discussion section and held two office hours per week.
- Developed two homework assignments. The first exercised students' abilities to write efficient SQL queries. The second was focused on concepts in data normalization and recovery algorithms.
- Helped write and grade exams.

**AWARDS &
HONORS**

2015-2016 Outstanding GSI Award