

# Arjun Srinivasan

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## SUMMARY

I am a fourth year Ph.D. student pursuing Computer Science at Georgia Tech. As part of my research, I design intelligent and expressive tools that combine multimodal input (e.g. speech and touch) and mixed-initiative interface techniques for human-data interaction.

## EDUCATION

**Georgia Institute of Technology**, Atlanta, Georgia, USA

- Ph.D. in Computer Science

Aug 2016 – Present

Research areas: Information Visualization, Natural User Interfaces

Advisor: Dr. John Stasko

- M.S. in Computer Science

Aug 2014 – May 2016

Specialization: Visual Analytics

Cumulative GPA: 3.83 / 4.0

**R.V. College of Engineering**, Bangalore, Karnataka, India

- B.E. in Information Science

Aug 2009 – Jun 2013

Cumulative GPA: 8.68 / 10.00

## EXPERIENCE

**Microsoft Research**, Redmond, Washington, USA

*Research Intern*, Mentor: Dr. Bongshin Lee

May 2019 – Aug 2019

Worked on multimodal interfaces for data visualization with the EPIC (Extended Perception, Interaction & Cognition) Research Group.

**Adobe Research**, Seattle, Washington, USA

*Research Intern*, Mentor: Dr. Mira Dontcheva

May 2018 – Aug 2018

Explored user interface techniques to enhance discoverability of natural language input.

**Microsoft Research**, Redmond, Washington, USA

*Research Intern*, Mentor: Dr. Steven Drucker

May 2017 – Aug 2017

Designed and evaluated techniques to facilitate visual comparison in data visualization dashboards.

**Salesforce.com**, San Francisco, California, USA

*Software Engineering Intern*, Analytics Cloud

May 2015 – Aug 2015, May 2016 – Aug 2016

Developed a visualization system for real-time monitoring and diagnosis of service queues across data centers in a multi-tenant cloud architecture.

**SAP Labs India**, Bangalore, Karnataka, India

*Associate Developer*, SAP HANA Cloud Integration

Jul 2013 – Apr 2014

Worked on R&D of Business Process Integration solutions on the cloud. Focused on developing proof of concept solutions for database refactoring and database migration.

## PUBLICATIONS

### JOURNAL/ CONFERENCE

A. Srinivasan, M. Dontcheva, E. Adar, and S. Walker. “Discovering Natural Language Commands in Multimodal Interfaces.” *ACM Conference on Intelligent User Interfaces (IUI)*, 2019.

A. Srinivasan, S.M. Drucker, A. Endert, and J. Stasko. “Augmenting Visualizations with Interactive Data Facts to Facilitate Interpretation and Communication.” *IEEE Transactions on Visualization and Computer Graphics*, 2019.

F. Hohman\*, A. Srinivasan\*, S.M. Drucker. “TeleGam: Combining Visualization and Verbalization for Interpretable Machine Learning.” *IEEE Visualization Conference (VIS)*, 2019. \*equal contribution.

M. Agarwal, A. Srinivasan, J. Stasko. “VisWall: Visual Data Exploration Using Direct Combination on Large Touch Displays.” *IEEE Visualization Conference (VIS)*, 2019.

B. Lee, A. Srinivasan, J. Stasko, M. Tory, and V. Setlur. “Multimodal Interaction for Data Visualization.” *International Conference on Advanced Visual Interfaces (AVI)*, 2018.

J. Thompson, A. Srinivasan, and J. Stasko. “Tangraphe: Interactive Exploration of Network Visualizations using Single Hand, Multi-touch Gestures.” *International Conference on Advanced Visual Interfaces (AVI)*, 2018.

A. Srinivasan, M. Brehmer, B. Lee and S. Drucker. “What’s the Difference?: Evaluating Variants of Multi-Series Bar Charts for Visual Comparison Tasks.” *ACM Conference on Human Factors in Computing Systems (CHI)*, 2018.

R. Basole, A. Srinivasan, H. Park, and S. Patel. “ecoxight: Discovery, Exploration and Analysis of Business Ecosystems using Interactive Visualization.” *ACM Transactions on Management Information Systems (TMIS)*, 2018

A. Srinivasan and J. Stasko. “Orko: Facilitating Multimodal Interaction for Visual Exploration and Analysis of Networks.” *IEEE Transactions on Visualization and Computer Graphics*, 2018.

A. Srinivasan, H. Park, A. Endert, and R. Basole. “Graphiti: Interactive Specification of Attribute-based Edges for Network Modeling and Visualization.” *IEEE Transactions on Visualization and Computer Graphics*, 2018.

A. Srinivasan and J. Stasko, “Natural Language Interfaces for Data Analysis with Visualization: Considering What Has and Could Be Asked”, *Proceedings of EuroVis*, 2017.

B. Saket, A. Srinivasan, E. Ragan, and A. Endert, “Evaluating Interactive Graphical Encodings for Data Visualization”, *IEEE Transactions on Visualization and Computer Graphics*, 2017.

R. Basole, T. Major, and A. Srinivasan “Understanding Alliance Portfolios using Visual Analytics”, *ACM Transactions on Management Information Systems*, Vol. 8, No. 2, Article 1, 2017.

#### WORKSHOPS

A. Srinivasan, B. Lee, and J. Stasko. “Facilitating Spreadsheet Manipulation on Mobile Devices Leveraging Speech”, *Data Visualization on Mobile Devices workshop at CHI 2018*, 2018.”

SB. Karthik, A. Srinivasan, N. Elmqvist, and J. Stasko. “Affordances of Input Modalities for Visual Data Exploration in Immersive Environments”, *IEEE VIS Workshop on Immersive Analytics*, 2017.”

R. Basole, T. Major, and A. Srinivasan, “Sequencing the Enterprise Genome: Interactive Visual Analysis of Multi-Dimensional Alliance Activities of Global Enterprises.”, *IEEE VIS business|vis*, 2015.

#### POSTERS

A. Das, A. Srinivasan, and J. Stasko, “CricVis: Interactive Visual Exploration and Analysis of Cricket Matches”, *IEEE VIS*, 2017.

A. Srinivasan, and J. Stasko, “NL4DV: Toolkit for Natural Language Driven Data Visualization”, *IEEE VIS*, 2016.

#### TECHNICAL SKILLS

##### *Programming Languages*

*Most experienced with:* JavaScript, Python, HTML/CSS, Java, SQL

*Familiar with:* Node.js, R, C#, C++

*Dabbled in:* C, PHP, Perl, Processing

##### *Libraries/Frameworks*

d3.js, numpy, NLTK, scipy, jQuery, Flask, Express

<b>ACHIEVEMENTS / AWARDS</b>	Georgia Tech College of Computing “Outstanding Graduate Research Assistant” Award.	2018
	Winner of Salesforce.com’s Analytics Innovation Challenge.	2016
	National finalist of Walmart’s Collegiate Innovators Challenge.	2014
	SAP Global Peer Recognition award.	2013
	Winner (1 <sup>st</sup> place) of SAP Osmosis.	2013
	National finalist (1 <sup>st</sup> runner-up) of SAP BizTech.	2012
	Winner of Microsoft India’s Windows 8 hackathon.	2012
	National finalist of SAP Dashboard Design Challenge.	2011
<b>ACADEMIC SERVICE</b>	<i>Awarded Special Recognition for Outstanding Reviews</i>	
	EuroVis 2019, MobileHCI 2019	
	<i>Organization Committee</i>	
	AVI 2018 Workshop on Multimodal Interaction For Data Visualization	
	<i>Program Committee</i>	
	2nd Workshop on Visualization for AI Explainability (VISxAI) at IEEE VIS 2019	
	KDD 2018 Workshop on Interactive Data Exploration and Analytics (IDEA)	
	<i>Reviewer</i>	2016-Present
	IEEE VIS, ACM CHI, ACM UIST, ACM ISS, EuroVis, MobileHCI, IEEE CG&A	
	<i>Teaching Assistant</i>	
<b>LEADERSHIP/ TECHNICAL EVANGELISM</b>	CS7450 Information Visualization	Fall 2018
	CS8803 Data Visualization: Principles & Applications	Spring 2017
	Board Member, India Club at Georgia Tech	2017
	Salesforce.com Campus Brand Ambassador	2016-Present
	Georgia Tech Career Fair Liason	2014
	SAP Student Ambassador (1 <sup>st</sup> student selected globally)	2013-2015
	Member of the Microsoft India App Review Board	2013-2014
	Microsoft Student Partner	2011-2013
	Joint Secretary for the Rotaract Club of RVCE	2011-2012