Arjun Srinivasan

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SUMMARY

I am a 4th year Computer Science Ph.D. student at Georgia Tech seeking full-time positions starting Summer/Fall 2020. My current research is at the intersection of Human-Computer Interaction and Information Visualization. Specifically, drawing upon techniques from multimodal (e.g. speech and touch) and mixed-initiative interaction, I design intelligent and expressive tools for visual data analysis.

EDUCATION

Georgia Institute of Technology, Atlanta, Georgia, USA

■ Ph.D. in Computer Science

Aug 2016 - Present

Research areas: Human-Computer Interaction, Information Visualization

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

EXPERIENCE

Microsoft Research, Redmond, Washington, USA

Cumulative GPA: 8.68 / 10.00

Research Intern, Mentor: Dr. Bongshin Lee

May 2019 - Aug 2019

Developed 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 speech input in multimodal interfaces.

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

<u>A. Srinivasan</u>, B. Lee, N.H. Riche, S.M. Drucker, and K. Hinckley. "InChorus: Designing Consistent Multimodal Interactions for Data Visualization on Tablet Devices." *ACM Conference on Human Factors in Computing Systems (CHI)*, 2020 (To Appear).

<u>A. Srinivasan</u>, 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.

<u>A. Srinivasan</u>, M. Dontcheva, E. Adar, and S. Walker. "Discovering Natural Langauge Commands in Multimodal Interfaces." *ACM Conference on Intelligent User Interfaces (IUI)*, 2019.

- <u>A. Srinivasan</u> 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, M. Brehmer, B. Lee and S.M. 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.
- <u>A. Srinivasan</u> and J. Stasko, "Natural Language Interfaces for Data Analysis with Visualization: Considering What Has and Could Be Asked", *Proceedings of EuroVis (Short Papers)*, 2017.
- F. Hohman*, <u>A. Srinivasan</u>*, S.M. Drucker. "TeleGam: Combining Visualization and Verbalization for Interpretable Machine Learning." *IEEE Visualization Conference (VIS) Short Papers*, 2019. *equal contribution.
- A. Saktheeswaran, <u>A. Srinivasan</u>, J. Stasko. "Touch? Talk? or Touch and Talk? Investigating Multimodal Interaction for Visual Network Exploration and Analysis." *IEEE Transactions on Visualization and Computer Graphics*, 2020. (To Appear)
- M. Agarwal, <u>A. Srinivasan</u>, J. Stasko. "VisWall: Visual Data Exploration Using Direct Combination on Large Touch Displays." *IEEE Visualization Conference (VIS) Short Papers*, 2019.
- B. Lee, <u>A. Srinivasan</u>, J. Stasko, M. Tory, and V. Setlur. "Multimodal Interaction for Data Visualization." *Workshop at the International Conference on Advanced Visual Interfaces (AVI)*, 2018.
- J. Thompson, <u>A. Srinivasan</u>, and J. Stasko. "Tangraphe: Interactive Exploration of Network Visualizations using Single Hand, Multi-touch Gestures." *International Conference on Advanced Visual Interfaces (AVI) Short Papers*, 2018.
- R. Basole, <u>A. Srinivasan</u>, H. Park, and S. Patel. "ecoxight: Discovery, Exploration and Analysis of Business Ecosystems using Interactive Visualization." *ACM Transactions on Management Information Systems (TMIS)*, 2018
- B. Saket, <u>A. Srinivasan</u>, 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 <u>A. Srinivasan</u> "Understanding Alliance Portfolios using Visual Analytics", *ACM Transactions on Management Information Systems*, Vol. 8, No. 2, Article 1, 2017.

WORKSHOPS

- <u>A. Srinivasan</u>, 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, <u>A. Srinivasan</u>, 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 <u>A. Srinivasan</u>, "Sequencing the Enterprise Genome: Interactive Visual Analysis of Multi-Dimensional Alliance Activities of Global Enterprises.", *IEEE VIS business*|vis, 2015.

POSTERS

- A. Das, <u>A. Srinivasan</u>, and J. Stasko, "CricVis: Interactive Visual Exploration and Analysis of Cricket Matches", *IEEE VIS*, 2017.
- <u>A. Srinivasan</u>, and J. Stasko, "NL4DV: Toolkit for Natural Language Driven Data Visualization", *IEEE VIS*, 2016.

TECHNICAL

Programming Languages

SKILLS

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

ACHIEVEMENTS
/ AWARDS

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 of SAP Osmosis.	2013
National finalist (1 st runner-up) of SAP BizTech India.	2012
Winner of Microsoft India's Windows 8 hackathon.	2012
National finalist of SAP Dashboard Design Challenge India.	2011

ACADEMIC SERVICE

Organization Committee

AVI Workshop on Multimodal Interaction For Data Visualization

Program Committee

ACM Intelligent User Interfaces Conference (Posters and Demos)

2020
2nd Workshop on Visualization for AI Explainability (VISxAI) at IEEE VIS

KDD Workshop on Interactive Data Exploration and Analytics (IDEA)

viewer

2016-Present

2018

Reviewer

IEEE VIS, ACM CHI, ACM UIST, ACM ISS, EuroVis, MobileHCI, ACM ICMI,

ACM IUI, IEEE TVCG, IEEE CG&A, INTERACT

Awarded Special Recognition for Outstanding Reviews

EuroVis 2019, MobileHCI 2019

Teaching Assistant

CS7450 Information Visualization Fall 2018
CS8803 Data Visualization: Principles & Applications Spring 2017

STUDENTS MENTORED

Arpit Narechania, Ph.D., CS (Currently at Georgia Tech) Fall 2018 - Present Shrishti AK, Masters, CS (Currently at Georgia Tech) Spring 2020 - Present **Rishab Mitra**, Undergraduate, CS (Currently at Georgia Tech) Spring 2020 - Present **Haveong Song**, Ph.D., CS (Currently at Georgia Tech) Fall 2018 - Fall 2019 Kuhu Gupta, Masters, CS (Currently at Georgia Tech) Fall 2018 **Ayshwarya Saktheeswaran**, Masters, HCI (Now at MathWorks) Fall 2017 - Spring 2018 **Ayan Das**, Undergraduate + Masters, CS (Now at KPMG) Spring 2017 - Fall 2018 Hyemin Hwang, Masters, CS (Now at Amazon) Fall 2017 - Summer 2018 George Wang, Undergraduate, CS (Now at Google) Fall 2017 - Spring 2018 Mallika Agarwal, Masters, CS (Now at Uber) Fall 2017

LEADERSHIP/ TECHNICAL EVANGELISM