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 Fall 2020. My 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 interfaces, I design expressive and intelligent visualization tools for human-data interaction.

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 Cumulative GPA: 8.68 / 10.00 Aug 2009 - Jun 2013

EXPERIENCE

Microsoft Research, Redmond, Washington, USA

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, and J. Stasko. "Interweaving Multimodal Interaction with Flexible Unit Visualizations for Data Exploration." *IEEE Transactions on Visualization and Computer Graphics*, 2020 (In Press).

<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) [Best Paper Honorable Mention, Top 5%].

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

- 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, <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.
- A. Srinivasan, 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

Winner of Coordin Took's CDIDC Bostor Competition

| ACHIEVEMENTS |
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| / AWARDS |

| Winner of Georgia Tech's CRIDC Poster Competition. | 2020 |
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| 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 |
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ACADEMIC SERVICE

Organization Committee

AVI Workshop on Multimodal Interaction For Data Visualization

2018

Program Committee

| Reviewer | 2016-Present |
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| KDD Workshop on Interactive Data Exploration and Analytics (IDEA) | 2018 |
| 2nd Workshop on Visualization for AI Explainability (VISxAI) at IEEE VIS | 2019 |
| ACM Intelligent User Interfaces Conference (Posters and Demos) | 2020 |

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 2019 - Present **Shrishti AK**, Masters, CS (Currently at Georgia Tech) Spring 2020 - Present **Rishab Mitra**, Undergraduate, CS (Currently at Georgia Tech) Spring 2020 - Present **Hayeong 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

Board Member, India Club at Georgia Tech2017Salesforce.com Campus Brand Ambassador2016-2017Georgia Tech Career Fair Liason2014SAP Student Ambassador (1st student selected globally)2013-2015Member of the Microsoft India App Review Board2013-2014Microsoft Student Partner2011-2013Joint Secretary for the Rotaract Club of RVCE2011-2012