Arjun Kashyap

Contact Information

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Research Interests

I am interested in working on computer networks, mobile and wireless networks, security and systems.

Education

University of Wisconsin-Madison, Madison, WI, USA
Master of Science, Computer Science CGPA: 3.91/4 2017 - 2019

National Institute of Technology (NIT) Trichy, Trichy, India
Bachelor of Technology, Instrumentation & Control Engineering CGPA: 9.16/10 2010 - 2014

Research Experience

Graduate Researcher, UW-Madison, WI, USA
Adviser: Prof. Suman Banerjee

- **Trusted platform for edge compute nodes** Sep 2018 - Present
  Exploring a mechanism for the cloud server and the client to trust the edge compute platform on which client applications would run.
  - Creating a solution on ParaDrop, an edge computing platform, to ensure that the edge node's software/hardware has not been tampered with and running only the desired software packages.

Professional Experience

University of Wisconsin-Madison, Madison, WI, USA
Project Assistant Jan 2018 - May 2019

Microsoft Corporation, Redmond, WA, USA
Summer Intern (Business Applications Group) May 2018 - Aug 2018

Oracle India Pvt Ltd, Hyderabad, India
Senior Software Developer (Full stack development) June 2014 - Jul 2017

Teaching Experience

Department of Computer Science, UW-Madison
Project Assistant, CS 537: Introduction to Operating Systems Fall 2018

- Served as one of the two graders for a class of 265 students, with duties of grading quizzes and helping students with any queries related to them.

Department of Computer Science, UW-Madison
Project Assistant, CS 640: Introduction to Computer Networks Spring 2018

- Served as one of the two graders for a class of 110 students, with duties of grading quizzes and holding office hours to help students on reviewing quizzes.

Coursework

UW-Madison
CS 537 Introduction of Operating Systems
CS 640 Introduction to computer Networks
CS 707 Mobile & Wireless Networking
CS 740 Advanced Computer Networks
CS 760 Machine Learning
CS 839 Data Science
CS 839 Topics in Security & Privacy

Other
Data Structures & Algorithm
Database Design
Information security

Software Skills

Programming Languages - C, C++, Java, Javascript, Python, Verilog, SQL, TypeScript MATLAB

Servers & Web containers - Weblogic, Tomcat

Web Technologies - HTML, CSS, NodeJS, Bootstrap, React, JQuery, RequireJS, Knockout

Databases - Oracle, MySQL

Projects

Study of Request-Routing in Content Delivery Networks

UW-Madison (Course: Adv. Computer Networks, with Prof. Paul Barford) Sep 2018 - Dec 2018

Performed a study of request-routing algorithms and mechanisms in CDNs, subject to varied network conditions. Discovered whether the request routing algorithms of Akamai CDN actually determines the best edge server with respect to client perceived latency.

Evaluating Differential Privacy Mechanisms for Network Trace Analysis

UW-Madison (Course: Topics in Security & Privacy, with Prof. Justin Hsu) Sep 2018 - Dec 2018

Evaluated numerous differentially-private mechnanisms on the static network dataset at packet and flow-level granularities. Applied the continual counter to a stream of (live) network data to output *top-k items* without compromising privacy of the user. Link

Embedding a canvas component in a model-driven form designer

Microsoft (Mentor: Syed Adnan Ahmed) May 2018 - Aug 2018

Designed a framework to create canvas-based components in PowerApps to allow an application author/developer to use them out-of-the-box instead of creating a component from scratch.

Coordination server for SAFER Home

UW-Madison (Adviser: Prof. Suman Banerjee) Jan 2018 - May 2018

As a member of the Safer Home prject, designed a server in ParaDrop, an edge computing platform, which coordinates messaging and video streaming during normal and emergency situations. The project was selected for application development award in US Ignite. Link

Entity Matching using Machine Learning

UW-Madison (Course: Data Science, with Prof. AnHai Doan) Feb 2018 - April 2018

Performed entity matching of books from raw data of Amazon and GoodReads using Magellan. Link

Honours and Achievements

Application development award from US Ignite for SAFER Home project.

Conferral of the *First Class with Distinction* for Bachelors of Technology degree in NIT Trichy, 2014 (Requires a CGPA above 8.5 out of 10).

Granted *academic proficiency* prizes in NIT Trichy during 2012 and 2013 for being among the top 3 students in the department.

Achieved a rank 2/96 in instrumentation & control engineering department in NIT Trichy.

Extracurricular Activities

Runner up in Table-Tennis in Annual Sports & Games 2011-2012 at NIT Trichy.

Manager of Pragyan Workshops team from 2012-2013 which organizes and conducts technical workshops for college students.