

Subhashis Hazarika

CONTACT INFORMATION	786 Drees Laboratories The Ohio State University Columbus, OH 43210-1277 USA	Voice: (614) 462-9957 e-mail: hazarika.3@osu.edu
RESEARCH INTERESTS	Scientific Visualization, Big Data Visual Analytics, Uncertain Feature Analysis.	
EDUCATION	The Ohio State University , Columbus, Ohio, USA Ph.D Student, Computer Science and Engineering, <ul style="list-style-type: none">• Major: <i>Computer Graphics</i>, Minors: <i>Artificial Intelligence</i>, <i>Parallel Computing</i>.• CGPA: 3.80/4.00• Advisor: Dr. Han-Wei Shen	Aug 2013 - present
	National Institute of Technology , Durgapur, West Bengal, India B.Tech., Computer Science and Engineering, <ul style="list-style-type: none">• CGPA: 9.12/10.00	2007 - 2011
EXPERIENCE	Los Alamos National Laboratory , Los Alamos, New Mexico, USA Graduate Summer Intern (Programming Models Team, CCS-7)	May, 2017 - August, 2017
	Gravity Research Lab, The Ohio State University , Columbus, Ohio, USA Graduate Research Associate	May, 2016 - present
	Novell Software Development (India) Pvt. Ltd. , Bangalore, Karnataka, India Senior Software Engineer	June, 2011 - May, 2013
	European Organization for Nuclear Research, CERN , Geneva, Switzerland Summer Intern Student	May, 2010 - August, 2010
TEACHING EXPERIENCE	Department of Computer Science, OSU , Columbus, OH, USA Graduate Teaching Instructor CSE1222:Introduction to Computer Programming in C++.	August, 2014 - April, 2016
PUBLICATIONS	Subhashis Hazarika , Soumya Dutta, Han-Wei Shen, Jen-Ping Chen.: “ <i>CoDDA: A Flexible Copula-based Distribution Driven Analysis Framework for Large-Scale Multivariate Datasets</i> ”, IEEE Transactions on Visualization and Computer Graphics , (Accepted at SciVis 2018). Subhashis Hazarika , Ayan Biswas, Soumya Dutta, Han-Wei Shen.: “ <i>Information Guided Exploration of Scalar Values and Isocontours in Ensemble Datasets</i> ”, Entropy 2018, 20(7), 540. (Special Issue Information Theory Application in Visualization). Subhashis Hazarika , Ayan Biswas, Han-Wei Shen.: “ <i>Uncertainty Visualization Using Copula-Based Analysis in Mixed Distribution Models</i> ”, IEEE Transactions on Visualization and Computer Graphics , 24(1): 934-943 (2018).	

Junpeng Wang, **Subhashis Hazarika**, Han-Wei Shen.: “*Visualization and Visual Analysis of Ensemble Data: A Survey*”, IEEE Transactions on Visualization and Computer Graphics , (2018).

Subhashis Hazarika, Soumya Dutta, Han-Wei Shen.: “*Visualizing the Variations of Ensemble of Isosurfaces*”, Pacific Visualization Symposium (PacificVis), 2016 IEEE, 209-213.

Sanjib Sadhu, **Subhashis Hazarika**, Kapil Jain, Saurav Basu, Tanmay De.: “*GRP-CH Heuristic for Generating Random Simple Polygon*”, 23rd International Workshop on Combinatorial Algorithms 2012: Page 293-302, Springer LNCS Volume.

Subhashis Hazarika, Tzu-Hsuan Wei, Rajaditya Mukherjee, Alexandru Barbur.: “*Visualizing the life and anatomy of dark matter*”, Scientific Visualization Conference (SciVis), 2015 IEEE, 101-106.

HONORS AND AWARDS

- O'Donnell Graduate Fellowship for first year of Ph.D, 2013.
- Summer Student at CERN, Geneva, 2010.

ONGOING PROJECTS

Extreme-scale Distribution-based Data Analysis Library (EDDA)

Advisor: Dr. Han-Wei Shen (The Ohio State University)

The library aims at visualizing distribution data for uncertainty analysis. The goal is to provide a unified data model with generic distribution representations for the development of uncertainty visualization algorithms.

Visual Summarization of Ensemble Isocontours

Advisor: Dr. Han-Wei Shen (The Ohio State University)

Working on novel analysis techniques to understand ensemble of isocontours in large-scale data generated from scientific simulations. Data specially corresponding to weather forecasting and ocean simulation.

ACADEMIC PROJECTS

Study and Implementation of Random Polygon Generation Heuristics

Advisor: Prof. Sanjib Sadhu (NIT Durgapur)

Involved studying the performance of present Random Polygon Generation heuristics and designing a new heuristic with better time complexity than the existing heuristics. It also involved creating a comprehensive testing module in C++ using CGAL libraries (for rendering graphics) for gauging the performance of the new proposed heuristic.

Designing Control System for Front End Electronics of EMCal Detectors

Advisor: Dr. Jan Rak (ALICE Team, CERN)

Built a server-client module in C to retrieve data from EMCal (Electromagnetic Calorimeter) detectors used in the LHC experiment. Second part of the project involved building an intuitive user interface in PVSS for visualizing and accessing the detector data and controls.

TECHNICAL SKILLS

- Programming Language: C/C++, Python.
- Web Technology: HTML, JavaScript, D3.js.
- Graphics Programming: OpenGL, GLSL.
- Operating Systems: Unix/Linux, Windows.

RELEVANT
COURSEWORK

- Algorithm
- Real-Time Rendering
- Geometric Modeling
- High Performance Visualization for
Large-Scale Scientific Data Analytics

- Intro to Data Visualization
- Statistical Machine Learning
- Survey of Artificial Intelligence II: Advanced
Techniques
- Intro to Parallel Programming

REFERENCE

Dr. Han-Wei Shen(shen.94@osu.edu)