Subhashis Hazarika

CONTACT INFORMATION	786 Dreese 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   **Aug 2013 - present**

Ph.D Student, Computer Science and Engineering,
- Major: *Computer Graphics*, Minors: *Artificial Intelligence*, *Parallel Computing.*
- CGPA: 3.80/4.00
- Advisor: Dr. Han-Wei Shen

National Institute of Technology, Durgapur, West Bengal, India   **2007 - 2011**

B.Tech., Computer Science and Engineering,
- CGPA: 9.12/10.00

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   **August, 2014 - April, 2016**
CSE1222:Introduction to Computer Programming in C++.

PUBLICATIONS

Subhashis Hazarika, Ayan Biswas, Han-Wei Shen:. *"Uncertainty Visualization Using Copula-Based Analysis in Mixed Distribution Models"*, IEEE Transactions on Visualization and Computer Graphics , 24(1): 934-943 (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)