

# TATHAGATA DASGUPTA

## WORK EXPERIENCE

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- 2017- PRESENT Senior Software Engineer, Highly Automated Driving, Here Technologies, Chicago  
Building highly scalable pipelines for ingesting street-level imagery, GPS, LiDAR data for creating High Definition map that enables Highly Automated Driving. Ingesting and processing petabytes of data using Python, Elixir, Postgres, AWS (Cloudformation, OpsWorks, S3, RDS, Lambdas, ECS). Reduced release time from days to hours, streamlined cross-team error handling workflow improving MTTR.
- 2013- 2017 Python Developer, Global Markets, Bank of America Merrill Lynch, Chicago  
Worked on the Bank's proprietary cross-asset technology platform Quartz - a Python stack that uses functional reactive frameworks, globally replicated object store, and high-throughput/low-latency messaging system. Gathered requirements, designed and implemented solutions for Global Market Operations. Worked on high-performance trade matching, confirmation generation, workflow management frameworks, and data lineage.
- 2011- 2013 Research Assistant, Dr. Mark Grechanik, University of Illinois, Chicago  
Application of natural language processing for software requirement traceability using Python, Java, bash scripting, MongoDB. Published as a first author in IEEE International Conference on Software Maintenance, 2013 and third author IEEE International Conference on Program Comprehension, 2014
- 2012 SUMMER Developer Intern, Xaptum.com  
Worked directly with the CEO on product strategy and vision. Designed and implemented key modules of an Internet of Things platform with RabbitMQ, Java OSGi, Spring-WS.
- 2007- 2009 Project Engineer, Wipro technologies, India  
Service orchestration in Aqualogic Service Bus Java Web Services for *Farmers Insurance*. Automated manual maintenance jobs, increased team productivity with a Lucene based search engine.

## EDUCATION

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- 2011- 2013 Master of Science, Management Information Systems, University of Illinois, Chicago  
2003- 2007 Bachelor of Technology in Computer Science and Engineering, West Bengal University of Technology, India

## VOLUNTEERING

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- 2014- 2018 Organizer, Chicago Python User Group  
Launched a free mentorship program driven by volunteers that has helped junior developers get started with programming and find better career opportunities. Designed and conducted number of workshops on Python, web development, data science that has been attended by hundreds of programmers.
- 2015- 2018 Webmaster, Asha for Education, Chicago  
Built a fund-raising website for Bank of America Chicago Marathon that raised over 15,000 dollars for education of 50 students in 5 months. Built a Wordpress plugin that is used by chapters across the globe for fund raising.

## HONORS

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- 2012 Google Chicago Coding Challenge  
Built a real time teacher student interaction system for large classrooms that would encourage students to ask questions using different Google technologies.
- 2011 Knight-Mozilla News Challenge, Berlin  
Was one of the 20 finalists selected worldwide for a week long hackathon to build breakthrough products on news innovation.

## PUBLICATIONS

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- **Tathagata Dasgupta**, Mark Grechanik, Evan Moritz, Bogdan Dit, Denys Poshyvanyk: *Enhancing Software Traceability by Automatically Expanding Corpora with Relevant Documentation*. *IEEE International Conference on Software Maintenance, 2013*
- Mark Grechanik, Collin McMillan, **Tathagata Dasgupta**, Denys Poshyvanyk, Malcom Gethers: *Redacting sensitive information in software artifacts*. *IEEE International Conference on Program Comprehension, 2014*
- Docker For Data Science, Pycon 2018 - Aly Sivji, Joe Jasinski, **Tathagata Dasgupta**
- dev.to/tathagata | blog.tathagata.me