

# SOURAV DUTTA

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## Education

**University of Florida**, Gainesville, USA (2017 – 2019)

- *MS, Computer Science* (GPA 3.63/4.0)

**Heritage Institute of Technology**, Kolkata, India (2009 – 2013)

- *B. Tech., Computer Science and Engineering* (GPA 8.44/10.0)

## Skills

- **Programming languages:** (*proficient*): C++, Python (*familiar*): PostgreSQL, MySQL, Typescript, JavaScript, Java, C#
- **Technologies:** Flask, Node.js, SQLAlchemy, OAuth, Loggly, Grafana, AWS, MVC, Docker containers, Event sourcing

## Employment

**Software Engineer 2**, *Globality Inc.*, July 2019 – present

- Worked on real time data reporting platform. Decreased report download latency by more than 50%.
- Built API framework to host public APIs with admin and users access using OAuth and Auth0.
- Working on developing Globality public APIs to support machine-to-machine integration with third party software. Achieved 2 major integration flows with SAP Ariba and Coupa.

**Graduate Student Assistant, Data Science Research Lab**, *University of Florida*, May 2018 – May 2019

Worked under the supervision of Dr. Daisy Zhe Wang on a DARPA funded project on **graph-structured** data. Built a pipeline using Python to create, query and retrieve information from knowledge graph with approx. 250,000 nodes.

**Graduate Student Assistant, Dept. of Pathology**, *University of Florida*, Oct 2017 – July 2018

Developed a pipeline to **store and process genomic** data of few hundreds of users. Worked on a SPA to visualize and search the data using Java, MySQL, Angular and Apache. Jenkins is used for deployment of test and production environment.

**Software Engineer II, Microsoft**, *Hyderabad, India*, June 2013 – July 2017

*Bing and Cortana*: Worked on user experience and user log analysis

- Owned Cortana Notebook frontend. Developed features and reviewed any change to Notebook. Instrumented user behavior and built a pipeline to analyze the same. Also, improved and maintained **99.9% availability** for Notebook.
- Worked on software designing and developing Cortana experiences such as travel itinerary, daily planner and Skywalk which is a framework to **render dynamic answers** by minimizing developer efforts to write similar UI.
- Developed experiences for different segments, major ones are shopping, events, sports and tech on Bing and Cortana. Conducted **A/B testing** and shipped to production based on metrics.
- Developed tools to improve developer productivity, like cleaning dead localized resources, **generating XPath** as per Bing standards and **accessibility** testing tool.

**Intern, Electric Loco Shed**, *Santragachi, India*, Summer 2012

Led the development of a .NET application with MS-SQL to maintain an **inventory** of spare materials and failure records. The app supported **searching records**, **generating reports** and gave suggestions to replace a faulty part.

## Select academic projects

**Spatial database implementation**, Spatial Database course (Aug 2018 – Dec 2018)

- Designed big number implementation using **GMP library** & implemented and analyzed various convex hull algorithms using **C++**.

**Bitcoin simulator**, Distributed Operating Systems course (Aug 2018 – Dec 2018)

- Implemented a distributed bitcoin simulator in Elixir that lets users transact, mine bitcoins, get rewards and see their balances.

**JAVA compiler**, Programming Language Principles course (Jan 2018 – April 2018)

- Wrote a compiler in JAVA using ASM with limited grammar to perform arithmetic operations and image processing.

## Achievements

- *Publication*: GAIA - A Multi-media Multi-lingual Knowledge Extraction and Hypothesis Generation System. In Proceedings of TAC KBP 2018, the 25th International Conference on Computational Linguistics: Technical Papers.
- India winner of Microsoft **“oneweek”** hackathon (2014) for developing a customer care bot over Cortana.
- Member and Secretary of ACM Student Chapter, Heritage Institute of Technology, Kolkata (January 2012 - December 2012).