

# Madhura Parikh

SOFTWARE ENGINEER

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*Seasoned Tech Lead, with 9+ years of industry experience. I enjoy shipping reliable and performant infra at scale.*

## Experience

### Meta

Seattle

SOFTWARE ENGINEER, TECH LEAD

May 2022 - Present

- Monitoring & Observability Infra
- Tech Lead for our AIOps infrastructure & ML Monitoring platform team (5 SWEs + v-team). Tech stack: Python / Hack / C++.
- Driving XFN work with UX, PMs and customer teams to build e2e automated incident investigation workflows
- Driving team roadmap / OKR planning, XFN project management and providing technical / career growth mentorship

### Google

New York

SENIOR SOFTWARE ENGINEER

Nov 2021 - May 2022

- Google Cloud Spanner
- HTAP and Federated queries for Spanner (C++)

### Facebook

New York

SENIOR SOFTWARE ENGINEER

Aug. 2018 - Nov 2021

- Monitoring & Observability Infra
- Architected next-gen stream-processing backend for FB's Distributed Tracing platform. (C++)
- Shipped fleetwide performance profiling tools leveraging eBPF in the linux kernel. (C/C++)

### Two Sigma Investments

New York

SOFTWARE ENGINEER

Mar. 2017 - Aug. 2018

- Implemented various improvements for performance and scalability of time series data for trading models. (Java).
- Implemented monitoring framework for Python trading models. (Java / Python / Ruby).

### Amazon Web Services

Greater Seattle area.

SOFTWARE DEVELOPMENT ENGINEER - II

Mar. 2015 - Mar. 2017

- Worked on the AWS Aurora Database
- Owned the design and implementation of a novel lock-free algorithm for scaling AWS Aurora database read performance on NUMA architectures (awarded patent). (C++).
- Developed a NUMA aware thread scheduler for the AWS Aurora database engine. (C++).
- Main developer for the RDS Enhanced Monitoring UI. (Java / GWT).

### Amazon Web Services

Greater Seattle area

SOFTWARE DEVELOPMENT INTERN

Summer 2014

- Implemented performance driver for measuring bottlenecks at the database storage layer. (C++ / Boost).

### The University of Texas at Austin

Austin, TX

GRADUATE RESEARCH ASSISTANT

2013 - 2014

- Implemented a topic modeling framework for generating descriptions of digital library collections. (pandas, jupyter, matplotlib).
- Implemented machine learning pipeline for large scale automated synthesis of fMRI images. (scikit-learn, numpy).

### Google Summer of Code Student

PYTHON SOFTWARE FOUNDATION

Summer 2013

- Implemented many of the core modules of astroquery, an open source python package that provides APIs for querying a number of astronomical web databases. (Python).

## Education

## The University of Texas at Austin

MASTER OF SCIENCE(MS) IN COMPUTER SCIENCE

Austin, TX

2013–2014

- **CGPA:** 3.88/4.00
- **Course highlights:** Advanced Operating Systems, Autonomous Robotics, Natural Language Processing, Predictive Modeling, Probabilistic Graphical Models, Computational Biology.

## National Institute of Technology (NIT)

BACHELOR OF TECHNOLOGY(B.TECH) IN COMPUTER ENGINEERING

Surat, India

2009–2013

- **CGPA:** 9.71/10.00
- Department Silver Medal for 2nd highest CGPA in Computer Engineering department.

## Selected Publications and Patents

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- **Lock-free updates to a data retention index.** Madhura Parikh, Kamal Gupta, Shriram Shridharan, Alex Verbitski. Filed Mar 23, 2017. Patent issuer and number us 15/468,032.
- **Computationally Supported Collection-level Descriptions in Large Heterogeneous Metadata Aggregations.** Unmil P. Karadkar, Karen Wickett, Madhura Parikh, et al, *Proceedings of the 15th ACM/IEEE-CS Joint Conference on Digital Libraries (JCDL '15)*
- **Static Analysis and Symbolic Code Execution.** Dhiren Patel, Madhura Parikh, Reema Patel, *CSI Journal of Computing*, 2015