SOHAM TAMBA

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EDUCATION

New York University, Courant Institute of Mathematics Sciences New York, NY
Master of Science, Computer Science (Concentration: *Machine Learning*) May 2021

- **GPA:** 3.926
- **Selected courses:** Deep Learning, Intro. Deep Learning Systems, Computer Vision, Natural Language Processing

National Institute of Technology Goa, India
Bachelor of Technology, Computer Science and Engineering May 2018

- **GPA:** 9.21/10.00; (Concentration: *Performance Optimization*)

SUMMARY

- 1 year of industry experience in *Software Engineering* through internships and mentorships
- 2 years of experience in *Artificial Intelligence* through graduate research assistantships and coursework
- 1 year of experience in *Performance Engineering* through undergraduate research assistantships and an internship
- Won mentions in top-tier coding competitions such as ACM ICPC; Solved ad-hoc tasks, coded in C++

TECHNICAL SKILLS – ranked by proficiency

- Programming Languages: *Python* (2 yr), *C++* (2 yr), *Julia* (1 yr), *SQL* (6 mo), *CUDA* (3 mo), *Java*, *Javascript*
- Tools: *Git* (4 yr), *Pytorch* (2 yr), *Pycharm* (2 yr), *Linux* (2 yr), *Tensorflow* (6 mo), *Pandas*, *Jira*, *Spring*, *React*

EXPERIENCE

Graduate Research Assistant – Deep Learning, **New York University,** New York, NY June 2020 – Present

- Projects: **Self-driving cars**, **Robust Computer Vision**, **Transfer Learning**
- Implemented software to benchmark driving agents and improved the success rate of the driving agent by 7.8%
- Tools used: Python, Pytorch, Pygame, Pycharm, Git

Software Development Engineer Intern, **Audible,** Newark, NJ June 2020 – Aug. 2020

- Developed a web application using Spring (Java) and React (Javascript)
  - **Result:** Reduced time required to generate 40% of a monthly report by 93.33%
- Received Linkedin commendations from immediate supervisor

Software Development Mentor, **Google Summer of Code,** India May 2019 – Sept. 2019

- Mentored a software development engineer: Reviewed his Julia code and provided feedback

Software Development Engineer, **Google Summer of Code,** India May 2018 – Aug. 2018

- Implemented and optimized graph analysis software for the Julia Graphs package
  - **Sample Result:** Reduced the execution time of PageRank by 63.54%
- Published results in the blog of Julia Programming Language: www.julialang.org/blog/2019/02/light-graphs
- Presented at Julia Conference 2018; Responded to questions regarding the project

Undergraduate Research Assistant, **National Institute of Technology,** Goa, India Sept. 2017 – May 2018

- Surveyed secure communication schemes and collaborated with researchers to design efficient schemes
- Contributed VHDL code to a project on implementing Machine Learning models on a Xilinx FPGA

COURSE PROJECTS ON ARTIFICIAL INTELLIGENCE – sohamtamba.github.io/projects

- **Transfer Learning for Medical Imaging;** Applied Computer Vision techniques on chest x-rays. Implementation: github.com/SohamTamba/HealthcareMachineLearning
- **Autonomous Driving:** Trained an agent to drive a car inside the CARLA simulator only using inexpensive data
- **Bird Eye View Estimation:** Trained a model to estimate the layout of the surroundings a car driving on a road
- **Unsupervised Pre-training**: Improved the performance of a data-efficient Computer Vision technique