

EDUCATION

- **Indian Institute of Information Technology** Lucknow, India
Bachelor of Technology in Computer Science and Artificial Intelligence; Current CGPA: 9/10 Dec. 2020 - present
Relevant Coursework: Artificial Intelligence, Machine Learning, Deep Learning, Data Structures, Algorithms, Automata Theory, Database Management Systems, Operating Systems, Big Data Analytics, Compiler Design, Computer Graphics

EXPERIENCE

- **Winter ML Bootcamp** Boston
Teaching Assistant Jan 2023
 - Instructed at [CBAI's Winter ML Bootcamp](#) in Deep Learning, with a focus on language models and interpretability; created and managed a scalable server infrastructure for the training runs
- **Atlas Fellowship** Oxford, UK
Instructor Oct 2022
 - Instructed at [Atlas Fellowship](#), a program for talented high-school students
 - Conducted sessions on Game Theory, Computer Science, Reverse Engineering, and Machine Learning
- **CERI SRF** Cambridge, UK
Summer Research Fellow July 2022 - Sept 2022
 - Participated in Cambridge Existential Risks Initiative's Summer Research Program, researching software supply chain security with a specific focus on ML pipelines
 - [Mapped out and quantified risks posed by supply chain attacks](#), and recommended a framework for providing guarantees in worst-case scenarios
- **SERI MATS** Remote
Fellow June 2022
 - Participated in Stanford Existential Risks Initiative's [ML Alignment Theory Scholars Program](#)
 - Was mentored by Evan Hubinger, in the **Deceptive AI** track
- **ML for Alignment Bootcamp** Berkeley, CA
Student Jan 2022
 - Attended the month-long bootcamp about ML and AI Alignment, organized by Redwood Research and Lightcone
 - Built imagenet, BERT, and GPT-2 from scratch using pytorch. Implemented interpretability techniques for them.
 - Implemented various training techniques including pipeline and data parallelism.
 - Replicated [OpenAI's GLIDE](#) text to image synthesis paper
- **QuantCo** Zürich, Switzerland
SWE Intern Jun 2021 - Aug 2021
 - Worked on QuantCo's internal toolchain for evaluating SQL databases performance for data science.
 - Containerized the benchmarker and deployed it to Google Kubernetes Engine.
 - Benchmarked and evaluated BigQuery, Microsoft SQL server, PostgreSQL, and Snowflake database systems.
 - Designed and developed QuantCo's engineering hiring challenge, challenge.quantco.com
- **KDE Community**
Open Source Developer; GSoC Mentor Nov 2018 - June 2021
 - **networkmanager-qt**: a Qt wrapper for NetworkManager API - during Google Code-in 2018
 - **marK**: a multimedia annotation tool for ML - during Season of KDE 2021 as a participant; and during Google Summer of Code 2021 as mentor.

AWARDS & ACHIEVEMENTS

- **Google Code-in 2018 Grand Prize Winner** 2018
 - [Google Code-in](#) is a contest by Google to encourage participation in open-source software. I completed 34 tasks in the contest and was selected as the Grand Prize winner by [KDE Community](#).
 - As a part of the prize, I was invited to Google's Headquarters in Mountain View, California.
- **Ranked 52 out of 15817 globally in PicoCTF** 2019
 - CTFs are cybersecurity competitions consisting of a series of challenges where participants must reverse engineer, break, hack, or decrypt the challenges. PicoCTF is organized by security experts at Carnegie Mellon University.
 - My team was ranked 52nd out of 15817 among high school and college students from around the world.

PROJECTS

- **ghsok**: Gin Hyperparameter Search On Kubernetes automates jobs on k8s clusters to search over hyperparameters
- **glide**: my implementation of [OpenAI's GLIDE](#) text to image synthesis algorithm
- **glide-train**: my implementation of training code for [GLIDE](#)
- **jLHS**: fast and tiny HTTP/1.1 server written in Java without any dependencies, supports GET and POST requests
- **Java-Disassembler**: .class file parser and serializer. Also disassembles code from compiled Java code.
- **FabricHax**: A minecraft mod to automate repetitive tasks
- **PhonePut**: An android application that turns your device into an input device for your computer
- **htccp-impl**: Implementation of rfc2324 - Hyper Text Coffee Pot Control Protocol (HTCPCP/1.0)
- **networkmanager-qt**: NetworkManagerQt provides access to all NetworkManager features exposed to Dbus API
- **marK**: A machine learning dataset annotation tool which allows users to annotate multiple types of data
- My website: pranavgade20.github.io

SKILLS

- **Programming Languages/Frameworks**: Java, Python, C++, C, JavaScript/NodeJS, Bash Scripting, Rust, Clojure, Haskell, 8085 Assembly, x86 Assembly, Kotlin, Groovy, PyTorch, cuda
- **Reverse Engineering/Information Security**: Ghidra, Radare2, Android Studio, GDB, Wireshark
- **Other Software**: Linux, Docker, Kubernetes, Google Cloud, git/mercurial, Gradle, Android, PostgreSQL, Snowflake, MongoDB, Regex, JSON, LaTeX