

Kiran Bhat

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EDUCATION

Stanford University

Stanford, CA

M.S. in Computer Science, B.S. in Computer Science

Expected June 2025

- GPA: 3.761
- Relevant Coursework: Machine Learning | Natural Language Processing | Computer Vision | Reinforcement Learning | Algorithms | Cryptography | Security | Networking | Operating Systems | Graphics & Imaging

TECHNICAL EXPERIENCE

Wati

Jun 2023 - Aug 2023

Software Engineering Intern

Tsim Sha Tsui, Hong Kong SAR

- Gathered dataset of contacts and trained ML models to predict which contacts would become customers of Wati
- Achieved 98% train accuracy and 92% test accuracy with initial models using class-balanced train/test sets
- Built data pipeline in Python to automatically query YouTrack API and upload ticket information to BigQuery
- Visualized the progress of tickets over time and employee performance with Looker Studio

Stanford University School of Engineering

Mar 2022 - Dec 2022

Computer Science Section Leader

Stanford, CA

- Instructed moderately sized groups of computer science students in Python and C++ in the CS106 program
- Graded assignments/exams and provided feedback to students
- Worked with Stanford CS professors and other staff to improve course material

ACMLab

Oct 2021 - May 2023

MLab Member, Teaching Assistant

Stanford, CA

- Built a convolutional neural network (CNN) using PyTorch to predict average income based on satellite imagery
- Achieved 3rd best validation loss out of Stanford teams who completed the project
- Mentored teams on models for bird classification and human value identification in text

AVEVA

Jun 2019 - Jul 2019

Software Engineering Intern

San Leandro, CA

- Led project to create a real-time, weight-based inventory management system using company software
- Constructed weight sensors and wrote Python code on Raspberry Pi to collect and upload weight data
- Created online, real-time visualization of the quantity of snacks in kitchenette snack bins as proof of concept

PROJECTS

Audio Inpainting with Diffusion

Sep 2023 - Dec 2023

- Utilized pretrained, unconditional audio-generating diffusion model to restore masked speech waveforms
- Applied image inpainting algorithm to the task of audio inpainting

Ghostwriter

Jan 2023 - Mar 2023

- Designed several constrained text generation models to write lyrics for a provided sequence of music notes
- Created evaluation pipeline to measure syllabic alignment, linguistic acceptability, and sentiment capture of lyrics
- Won best project award in *CS224N: Natural Language Processing*, the most enrolled CS course at Stanford

Cave Rescue with Reinforcement Learning

Jan 2023 - Mar 2023

- Trained a reinforcement learning agent in Julia to rescue people trapped in cave systems of varying complexity
- Utilized the POMDPs.jl package to implement a Markov Decision Process representing the cave environment
- Learned several policies with Discrete Value Iteration, Q-learning, SARSA, and Monte Carlo Tree Search

Rlevator

Sep 2022 - Jan 2023

- Trained a dynamic elevator control algorithm using reinforcement learning in Python with Stable Baselines 3
- Designed elevator simulation environment with OpenAI Gym and created real-time animation with Tkinter
- Performed 2-4x better than standard elevator algorithm in reducing passenger wait times

LANGUAGES AND TECHNOLOGIES

- Python | C++ | C | C# | Julia | Java | JavaScript | HTML | CSS | x86 Assembly
- Git | Unix | PyTorch | Numpy | Bootstrap | ReactJS | GCP | Unity | Blender | VS Code | LaTeX | Logic Pro X