

# Sahil Parikh

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## EDUCATION

### Carnegie Mellon University

Pittsburgh, PA

*Bachelor of Science in Statistics and Machine Learning; Computer Science*

*May 2026*

**Relevant Coursework:** Machine Learning (PhD), Artificial Intelligence, Parallel Data Structures and Algorithms, Modern Regression, Computer Systems, Probability and Statistics, Algorithms, Deep Learning Systems

## EXPERIENCE

### Member of Technical Staff

July 2026 – Present

*OpenAI*

*San Francisco, CA*

- Developed modeled-conversion methods to estimate ad conversions that cannot be directly attributed, supporting more complete advertiser reporting.
- Built data pipelines and integrations with external measurement sources to expand conversion data coverage and support model validation.
- Built data pipelines and trained a lightweight model to grade ads for policy compliance, reducing grading compute costs by approximately 65%.

### Software Engineering Intern

May 2025 – August 2025

*Meta*

*Menlo Park, CA*

- Developed an internal age-verification testing tool using PHP (Hack), React, and GraphQL with custom JavaScript hooks, enabling engineers to test verification flows with controlled test-user data.
- Built signal-override tooling to modify existing age signals, enabling robust validation of verification methods and broader coverage of edge cases.
- Added unit and end-to-end tests across the tool's core workflows while working within Meta's internal development ecosystem and coding standards.

### Software Engineering Intern

May 2024 – August 2024

*The Home Depot*

*Atlanta, GA*

- Implemented Java support for nonstock items in the Transmit App, enabling transactions between third-party suppliers and Home Depot customers.
- Wrote BDD and unit tests to ensure the reliability and functionality of new Transmit App features.
- Synchronized transaction data across platforms to improve bulk-purchasing workflows for business accounts.

## PROJECTS

### Speculative Decoding Implementation in Needle | *Python, Needle, NumPy*

- Implemented speculative decoding in Needle, a from-scratch deep learning framework, to accelerate autoregressive language-model inference using a draft model and target-model verification.
- Built the draft-and-verify sampling loop with multi-token proposal, parallel target scoring, token acceptance, and fallback generation while preserving the target model's sampling distribution.
- Compared speculative decoding with standard autoregressive generation, analyzing how draft length and token acceptance affect target-model utilization.

### The Effects of Decay Schedules on Outer PPO | *Python, PyTorch, Stable-Baselines3, MuJoCo*

- Implemented baseline PPO, outer-PPO, and decay-PPO variants for continuous-control tasks in MuJoCo Humanoid-v4 and Walker2d-v4 environments.
- Ran controlled experiments comparing convergence across learning-rate schedules and found that standard PPO consistently outperformed the tested outer-PPO variants.
- Co-authored a technical report analyzing instability from decayed outer-loop updates and proposing directions for improved adaptive optimization.

## TECHNICAL SKILLS

**Languages:** Python, Java, JavaScript, C, C++, Swift, PHP (Hack), SML, R, Assembly, HTML/CSS

**Tools & Libraries:** PyTorch, NumPy, Pandas, Matplotlib, Git, Codex

**Infrastructure & Platforms:** Spark, Kepler, Grafana, Statsig, gRPC, Google Cloud, Terraform