

SHATAYU KULKARNI

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EXPERIENCE

Machine Learning Engineer, Meta Platforms Inc.

New York, NY • Mar. 2022 – Present

- Developed a custom ranking model for People You May Date, which improved FB Dating DAU by 0.6%. Drove the project from ideation to deployment, facilitating cross-team efforts to broaden the feature set.
- Overhauled the ranking infrastructure for People You May Date, leading to a 0.03% uplift in FB App sessions and a 1.4% increase in FB Dating DAU through the enabling of custom ranking model deployment and custom value model tuning.
- Designed and implemented department-wide model reliability strategy, developing an internal tool to monitor production model performance daily. Achieved 100% adoption within team and 78% adoption across Dating, significantly improving model observability.

Software Engineer Intern, Meta Platforms Inc.

Menlo Park, CA • May 2021 – Aug. 2021

- Developed a feature for easy sharing of interactive charts in code notebooks, optimizing based on customer feedback. This led to 500+ uses within the first four weeks.
- Led meetings and gathered customer feedback to craft a product-level initiative to use visual feedback and GUIs to augment the coding experience in notebooks. Initiative was adopted for H2 2021 and three features were launched within weeks of finalization.

Software Engineer Intern, Meta Platforms Inc.

Menlo Park, CA • May 2020 – Aug. 2020

- Remade the ad preview for mobile search ads used in Ads Manager. Resulted in significant speed increases, more accurate previews for ads, and more scalable architecture.
- Created a suite of tools used to develop and test hundreds of thousands of ad previews. This includes a comparison tool that slashed development time and a large-scale automated testing tool which provided several useful metrics on ad preview accuracy.

Data Science Intern, Viasat Inc.

West Lafayette, IN • Sept. 2019 – Apr. 2020

- Devised a machine learning model to gauge customer satisfaction with Wi-Fi speed, influencing a strategy to enhance the customer Wi-Fi experience.
- Employed clustering algorithms to analyze beam performance, identifying key inefficiencies and providing actionable improvement recommendations.

RESEARCH EXPERIENCE

Undergraduate Researcher, Purdue CS

West Lafayette, IN • Aug. 2021 – Dec. 2021

- Kulkarni, S. and Azizzadenesheli, K. (2021). *Applying Competitive Policy Gradient to Pokémon Battling* [Undergraduate thesis, Purdue University].
- Used novel reinforcement learning algorithm Competitive Policy Gradient to achieve 90% winrates in Pokémon battles against deterministic benchmark agents.

Undergraduate Researcher, RCODI Lab

West Lafayette, IN • Jan. 2019 – Apr. 2019

- Kulkarni, S. and Brunswicker, S. (2023, July 17-20). *Maximizing Cooperative Behavior in Collective Action Games Through a Reinforcement Learning AI Agent*. IC2S2 2023 "9th International Conference on Computational Social Science" Copenhagen, Denmark.
- Used reinforcement learning to drive median in the public goods game by 30.5% against simulated agents behaving in manners typical of humans in collective action games (Ezaki et al. 2016).

EDUCATION

B.S. in Computer Science (Honors), Purdue University

West Lafayette, IN • Aug. 2018 – Dec. 2021

- GPA: 3.79/4.00
- Minors: Mathematics, Entrepreneurship
- **Selected Coursework:** Reinforcement Learning (graduate level) • Algorithm Design, Analysis, and Implementation (graduate level) • Artificial Intelligence • Data Mining and Machine Learning • Operating Systems • Compilers • Real Analysis • Probability

SKILLS

- **Programming Languages:** Python, PyTorch, SQL, C, C++
- **Web Development:** JavaScript, Node.js, React, HTML, CSS, Hack/PHP