Hari Desikan

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EDUCATION

CARNEGIE MELLON UNIVERSITY   Pittsburgh, PA
B.S. Computer Science, B.S. Math   December 2027
Coursework: Machine Learning, Matrix Theory (Linear Algebra), Advanced Algorithms, Probability, Functional Programming, Category Theory, Combinatorial Games, Combinatorics

EXPERIENCE

Meta   Menlo Park, CA
Software Engineer Intern   May 2024 - Aug 2024
- Design interactive modal to aid in compliance with **8 categories** of ad fairness laws, utilizing internal gatekeeper API for continuous integration (adsmanager.facebook.com/adsmanager/manage/campaign/)
- Implement gesture-tracking for use in data analysis of user interactions, including logging **338% more interactions** than the previous modal and projected to log **175 million clicks** by the end of 2024
- Fix internal tool allowing interns (including myself) access to all code involving SAFR restrictions

PROJECTS

Perudo Online (perudoonline.com)   May 2023 - Aug 2023, April 2024 - Present
- Build website to play **online multiplayer Perudo** (an imperfect information game) utilizing websockets
- Include regional variants and rulesets including the Pirates of the Caribbean ruleset, "ones wild" (dudo.ai), and a novel "high hand" rule set that reduces second-player advantage in 1v1 matches
- Training and Tuning Counterfactual Regret model to beat Dudo AI

AspireNow   Jan 2024 - March 2024
- Write algorithm to streamlines **heads up no-limit hand analysis** by sorting and filtering hand histories given in PokerNow CSV format (~10 columns, 3 - 20 rows per hand) including by betting lines, flop structures, and other common metrics. Facilitates population analysis via multiple CSV inputs
- Include ~30 selected HUD stats (eg. fold to turn double barrel) as well as the tools to compute more

Developing Contrast-to-Noise Ratio Thresholds for the Detection of MCF-7 Breast Cancer Tissue in Acoustic Shadows
Research in Physics Program (RPhys)   Oct 2020 - Jun 2022
- Develop a **novel computational method based on recent research (2018)** exploiting the different densities of benign and hostile tissue to detect cancerous tissue with ultrasound
- **NC International Science Challenge Finalist**, **3rd at NC ISEF**, Present at NC Undergraduate Research

ACTIVITIES

Carnegie Mellon Informatics and Mathematics Competition   Pittsburgh, PA
Problem Writer, Logistics Committee Head   Oct 2022 - Present
- Organize HMMT staff exchange, including planning logistics for volunteer trip to MIT and Harvard
- Write 10+ problems for contests including two Theoretical CS problems and difficult individual problems
- Organize social events and directed tasks like preparing and handling awards for the competition

Poker   Pittsburgh, PA; Remote
Host, CMU A-Team Competitor   Oct 2022 - Present
- Lead CMU to the 24-25 Intercollegiate Poker Association finals (top 4 colleges)
- Organize 5 weekly live professional home games, including refreshments and meals for participants
- Host and play in biweekly online no-limit mid-stakes poker games on 5+ online poker servers

SKILLS

Technical Skills: Python, Pandas, Java, Javascript, MATLAB, Git, React JS, Akuna Options 201

AWARDS

Olympiads and Competitions: 207 USAMO **Index** (117+9) (Top 0.3%), Putnam 2023 **Top 350**, USACO Gold (Top 8%), USAPhO (Top 6%),