Ketan **Agrawal**

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Summary

4th-year Symbolic Systems and Computer Science student at Stanford. Published research using computer vision in cognitive science, shipped impactful web tools at Amazon, and currently developing deep learning for mental healthcare. Enjoy building side projects that enable new modes of human-computer interaction. Lover of Emacs, digital gardening, and cats.

Education

Stanford University — *Stanford, CA*

M.S. in Computer Science (AI) — *Jan. 2021 - Jun. 2022 (expected)*

- GPA: 3.89/4.00
- Planned Coursework: Reinforcement Learning, Deep Generative Models, Graph Machine Learning

Stanford University — *Stanford, CA*

B.S. in Symbolic Systems (AI) — *Sep. 2017 - Jun. 2021*

- GPA: 3.81/4.00
- Relevant Coursework: Computer Vision, Natural Language Processing, Probabilistic Programming

Research Experience

Partnership in AI-Assisted Care — *Stanford, CA*

Research Assistant — *Jan. 2020 - present*

- Design AI tools for automated mental health assessment under Prof. Fei-Fei Li and Dr. Nirav Shah.
- Developing models using speech, facial, and linguistic features to detect depression/anxiety from patient interviews.
- Using unsupervised / semi-supervised pretraining to increase performance on small medical datasets.

Language and Cognition Lab — *Stanford, CA*

Research Assistant — *Oct. 2018 - Jun. 2020*

- Analyzing first-person infant headcam videos using computer vision algorithms under Prof. Michael Frank.
- Used human face and pose estimation algorithms to examine longitudinal trends in infants' visual scenes.
- Work accepted as a talk, presented at Conference of the Cognitive Science Society 2020.

Work Experience

Amazon Fire TV — *Gahanna, OH (virtual)*

Software Development Intern — *Jun. 2020 - Sep. 2020*

- Developed a web portal with React.js and Typescript that now serves as a hub for Fire TV partner communications.
- Worked closely with engineers and manager to design intuitive, user-friendly workflows for data entry and verification.

CS 198 Teaching Program — *Stanford, CA*

Section Leader — *Jan. 2019 - present*

- Taught weekly discussion section and office hours for 3+ quarters of CS 106B (programming abstractions.)
- Worked with sectionees to create elegant, efficient solutions to data structures and recursion problems.

Projects

Smart Glove — *link →*

Raspberry Pi-powered smart glove to control IoT devices. Won award in Interhackt hackathon. — *2020*

Org-Twitter — *link →*

Emacs package to tweet snippets and threads directly from your org-mode notes. — *2020*

Autonomous RC — *link →*

Self-driving RC car that can navigate novel mazes of paper. — *2018*

Skills

Advanced Python, PyTorch, TypeScript, React/NextJS, C/C++

Intermediate Neo4j, Lisp, Bash, Swift, Java