Ketan **Agrawal**

Software Engineer · Machine Learning Researcher

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Summary

I'm a fourth-year coterminal student at Stanford studying Symbolic Systems with a concentration in artificial intelligence, and Computer Science with a concentration in computer systems. In my time at Stanford, I've published research in cognitive science, taught introductory computer science, and am currently researching deep learning in healthcare settings. I spend my free time drawing on my iPad, writing notes in my digital garden, and dreaming up new ways for humans and computers to interact.

Education

Stanford University — *Stanford, CA*

B.S. in Symbolic Systems (AI), M.S. in Computer Science (Systems) — *Sept. 2017 - Jun. 2022 (expected)*

- GPA: 3.79 / 4.00

Columbus Academy — *Gahanna, OH*

High School Diploma — *Aug. 2013 - Jun. 2017*

- GPA: 4.52 / 4.00

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.
- Integrated with backend services at Amazon; deployed on an AWS stack using ECS Fargate, Amazon Cognito, and Amplify.

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

Research Assistant — *Jan. 2020 - present*

- Working under Prof. Fei-Fei Li and Dr. Nirav Shah to design automated mental health assessment tools.
- Developing unsupervised deep learning models in Pytorch to predict depression from patient interviews.

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.
- Held weekly, 1-on-1 code feedback sessions with 30 students, graded over 100 assignments.

Language and Cognition Lab — *Stanford, CA*

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

- Worked under Prof. Michael Frank to analyze first-person infant headcam videos using computer vision algorithms.
- Used face and pose estimation algorithms to compute trends in social scenes over the first 2 years of life.
- Work was accepted for and presented at Conference of the Cognitive Science Society 2020.

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