

# AAYUSH KUMAR

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San Jose, CA - U.S. Citizen

## EDUCATION



GEORGIA INSTITUTE OF TECHNOLOGY  
**B.S. in Computer Science: Intelligence & HCI Threads - 3.83 GPA**  
ATLANTA, GA • GRADUATING DEC 2018

## EXPERIENCE



YAHOO: TRIPOD PROJECT  
**Tripod Engineering Intern**  
SAN FRANCISCO, CA • MAY 2017 - AUG 2017

Yahoo's platform for commoditized photo & video storage, serving, enrichment, aggregation, & search

- Improved image search parsing accuracy by broadening search metrics & testing query processing algorithm
- Built Tripod Map/Image Viewer UI in React.js to visualize EXIF-metadata/geodata for individual users



ARON DEVELOPERS  
**Full Stack Rails Developer Intern**  
LOS ALTOS, CA • MAY 2016 - AUG 2016

Real estate developer which focuses on building smart, luxury homes in San Francisco Bay Area

- Effectively communicated net interest being paid for mortgages on all unsold properties/construction sites
- Designed & Implemented SQL tables for Loans database to support realtime ruby on rails data visualization



SMART CITY INFRASTRUCTURE  
**Computer Vision Engineer**  
ATLANTA, GA • AUG 2017 - PRESENT

Working under Dr. James Tsai, Dr. Tony Yezzi to develop city infrastructure monitoring/diagnosis with modern technologies

- Developing vehicle detection, categorization & tracking system to gather data about traffic flow/behavior patterns
- Using YOLO Real-time object system backed by Tensorflow implementation of darknet & trained on Udacity's Autti dataset



PROJECT RESURGENS  
**AHNA AI/IOT Developer**  
ATLANTA, GA • MAY 2016 - AUG 2017

Georgia Tech's Smart Solar Home & Internet of Things project emphasizing self-sustenance/net zero energy/carbon footprint

- Training a classification model of electricity consumption using outlet reading data to optimize energy consumption
- Building cross-platform React Native App that helps users track electricity & water savings/consumption over time

## PROJECTS



RAVEN'S MATRIX SOLVER  
**Knowledge Based AI Project**  
AUG 2017 - PRESENT

Designed a Python Agent that solves Raven's Progressive Matrices, a credible measure of intelligence via visual analogies

- Built Semantic Networks to capture knowledge representation, backed by Numpy adjacency matrices
- Leveraged Generate and Test methodology to determine basic image transformation rules



LOCAL FEATURE MATCHING  
**Computer Vision Project**  
AUG 2017 - PRESENT

Wrote a Matlab algorithm for matching points between multiple views of the same physical scene

- Implemented Harris Corner Detector to identify interest points within corresponding images
- Created SIFT Pipeline to describe each interest point and accurately match corresponding points

## SKILLS

### LANGUAGES

- Java
- Python
- JavaScript
- Matlab
- HTML/SASS/CSS
- Ruby on Rails

### LIBRARIES

- SKLearn
- OpenCV/PIL
- React/Redux
- ImmutableJS
- LeafletJS
- Android SDK

### DEV TOOLS

- Jira
- Designs & Mockups (Sketch)
- Splunk
- Git/GitHub Workflow
- Linux/RHEL (SSH)
- Enterprise Slack/Hipchat

### RELEVANT COURSES

- Knowledge-Based AI
- Computer Vision
- Intro to AI
- Robotics & Perception
- User Interface Design
- Algorithm Design/Analysis

## INTERESTS

### ACTIVITIES

- GT Qurbani - All-Male Nationally Competitive Collegiate Bollywood Fusion Dance Team
- Tennis - Competed in the USTA Men's Singles Circuit
- Recreational - Collegiate Intramural Ultimate Frisbee, Hiking, Rock Climbing, Camping
- Musician - Played Piano for 8 Years & Recorded Covers

### AWARDS

- Faculty Honors 2015, 2016 - 4.0 GPA in most recent semester
- Dean's List - GPA avg of 3.0 or higher
- 2nd - Cal Berkeley National Speech Invitational (117 competitors)
- 1st - University of Pacific Jon Schamber Speech Invitational



Made with React