

# VIBHU KUNDETI

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## EDUCATION

### University of Pittsburgh

August 2019 - December 2022

BS Computer Science *GPA: 3.792*

- Concentration in Computer Systems and Machine Learning

### Thomas Jefferson High School for Science and Technology

September 2015 - June 2019

**Coursework:** Algorithm Implementation, Data Structures, Formal Methods In Computer Science, Machine Learning, Linear Algebra, Probability Statistics, Discrete Structures

**Achievements:** Pitt Success Grant Recipient, Panther Pride Award, Dean's List, Grid Creator Hack

## EXPERIENCE

### MicroStrategy

Tysons, VA

*Software Engineer Intern*

May 2021 - August 2021

- Improved developer website by adding Postman integration
- Implemented existing client/developer workflows within Postman using MicroStrategy REST API in addition to designing and creating new workflows based on user need for latest API version.

### UPITT School of Computing and Information Research Lab

Pittsburgh, PA

*Researcher*

January 2021 - May 2021

- Aimed to use hallucinated optical flow (predicted motion) to improve nuanced interpretation of advertisements
- Generated pixel level representations of predicted flow for Pitt's Image Ad dataset using a ConvNet
- Visualized these pixel level representations as flow vectors drawn on the original image for analysis

### TJHSST Computer Systems Research Lab

Alexandria, VA

*Researcher*

August 2018 - May 2019

- Aimed to solve a jigsaw puzzle using a robotic arm and overhead camera
- Used OpenCV library to process an image of a scattered puzzle by generating contours, corner detection, adjusting for lens distortion, etc.
- Implemented a python based SIFT algorithm for image matching to determine location of a given piece
- Created an instruction set to translate digital solution of puzzle to instructions for the robotic arm (uArm Pro)
- Full paper linked here: [Link](#)

## LEADERSHIP

### National Air and Space Museum - Steven F. Udvar Hazy Center

Chantilly, VA

*Volunteer*

June 2018 - August 2019

- Lead the Geology exhibit, where I would present the exhibit to 50-300 visitors daily Responsible for training new volunteers working the exhibit and managing artifacts/interactive sections.
- Organized student volunteers during large monthly events (solar eclipse, military flyover) by managing exhibitions as they became understaffed or overstaffed

## SKILLS/INTERESTS

Highly Skilled:	Java, Python
Proficient:	C, JavaScript, Swift, HTML, CSS MIPS, SQL
Libraries/Tools:	OpenCV, jQuery, Ajax, Core Data, Git, REST API
Interests:	Chess, Painting, Traveling, Board Games

## PROJECTS

### House Hack Languages: Python, React, Node.js, Angular.js, Solidity

March 2018

- Allows direct and secure sale of properties between individuals, without the need of a third party; used Solidity in order to write smart contracts, which are stored on a blockchain.
- Utilized Dwolla API to implement safe and secure transactions of USD between buyer and seller
- Built GUI components with Angular.js, in which users can navigate/pull info from the blockchain and buy/sell houses.

### CashIn Languages: Python, HTML, CSS

October 2017

- Web app allowing for user's to capture an image of a receipt of any purchase and distribute items to other friends on our platform.
- Trained OCR on a set of roughly 2000 receipts pulled from Google Images to detect patterns with identifying corresponding item names and prices.