Vijay Pillai

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ENGINEERING EXPERIENCE

Fullstack Developer, *Cornell Tech + Kaltura collaboration (Product Studio),* New York, NY **Fall 2017**

- Produced automated road sign detection and management platform for city workers using smartphones mounted on city vehicles in response to challenge posed by Kaltura: "How might we take videos taken on devices and use them to reduce safety risks in the inspection and audit of infrastructure?"
- Worked with diverse interdisciplinary team of MBA, Operations Research, and CS students
- Python/OpenCV/Android/JQuery

Fullstack Developer (intern), *Outer Journey*, Great Barrington, MA **Summer 2016**

- Worked on a small team to develop web application prototype
- JavaScript/jQuery/Bootstrap front-end, PHP/SQL back-end
- Required regular meetings with management to communicate current status, roadblocks, and ensure that product was in line with company vision

SPECIALIZED SKILLS

Programming Languages: Python, Java, C++, JavaScript, HTML/CSS, C, C#, PHP, SQL, Go, Haskell

Tools: Atom Editor, JetBrains Pycharm, IntelliJ IDEA, NetBeans, QTCreator, Arduino, jQuery, Bootstrap, MySQLi, Docker, Git, Github, Atlassian BitBucket, JIRA, Slack, AWS EC2, GCP, React Native, PhpMyAdmin, Filezilla

Operating Systems: RedHat and Debian-based Linux (Fedora, Ubuntu, Raspbian, Mint), OS X, Windows

Languages: English (native); Spanish (minimal professional proficiency); Malayalam (limited working proficiency)

EDUCATION

Cornell University, Cornell Tech, New York, NY
Master of Engineering in Computer Science, GPA **3.81** **Expected May 2018**

Bard College at Simon's Rock, Great Barrington, MA
Bachelor of Arts in Computer Science **May 2017**

Selected Coursework: Networked and Distributed Systems • Applied Machine Learning • Virtual and Augmented Reality • Product Studio ••• Machine Learning and Neural Nets • Artificial Intelligence • Combinatorial Algorithms • Discrete Math • Computer Gadgets and Digital Media • Graph Theory and Combinatorics

Undergraduate Work Experience: Tutor for Intro to Computer Science, Tutor for Algorithms and Data Structures, Tutor for Object Oriented Programming

ACADEMIC PUBLICATIONS

A Low-Cost, Feature-Based Color Threshold Selection Approach to Eye-gaze Tracking and a Basis For Gaze Interface
Senior Thesis, Bard College at Simon's Rock **Spring 2017**

- Modified a consumer-grade camera for infrared eye tracking within a $200 budget
- Developed functional software for eye tracking using novel methods (Python/OpenCV)
- Wrote report explaining methodology for IRB review
- Tested software on human subjects following iterative design cycle

A Feature-Based Color Threshold Selection Approach to Pupil Tracking,
Conference Paper, 2017 IEEE MIT URTC **June 2017**

- Accepted and presented at conference

LEADERSHIP EXPERIENCE

Founder and Co-President, *Simon's Rock Computer Science Club*, Great Barrington, MA **Fall 2015 - Spring 2017**

- Created student body for encouraging the pursuit of knowledge and involvement in computer science
- Aided growth of college computer science department
- Co-organized hackathon with Google on social change and open data for students (attendance 60+)

Teacher's Assistant, *Intro to Philosophy*, Jinan University, Guangzhou, Guangdong, China **Summer 2014**

- Provided teaching assistance to ~70 undergraduates