# Vijay Pillai

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## **EDUCATION**

**Cornell University,** Cornell Tech, New York, NY Master of Engineering in Computer Science

**Expected May 2018** 

**Bard College at Simon's Rock,** Great Barrington, MA **Harvard Summer School,** Cambridge, MA Bachelor of Arts in Computer Science Associate of Arts

May 2017 May 2015

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 • [Algorithms and Data Structures]

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

# SPECIALIZED SKILLS

Programming Languages: Python, Java, C++, C, C#, JavaScript, PHP, Haskell, SQL, HTML/CSS, Go, 6502 Assembly
 Tools: Atom Editor, JetBrains Pycharm, IntelliJ IDEA, NetBeans, QTCreator, Arduino, Git, Github, Atlassian BitBucket, JIRA, Slack, PhpMyAdmin, Filezilla, Microsoft Office, Libre Office, LaTeX, jQuery, Bootstrap, MySQLi
 Operating Systems: RedHat and Debian-based Linux (Fedora, Ubuntu, Raspbian, Mint), OS X, Windows
 Languages: Spanish (minimal professional proficiency); Malayalam (limited working proficiency)

## **ENGINEERING EXPERIENCE**

Fullstack Developer (intern), Outer Journey, Great Barrington, MA

35hrs/week, Summer 2016

- Worked on a small team to develop web application prototype
- JavaScript/AJAX/jQuery/Bootstrap front-end, PHP/SQL back-end
- SQL database management
- Session security

# RELEVANT ACADEMIC PROJECTS

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
- Wrote report explaining methodology for IRB review
- Tested software on human subjects following IRB review

# A Feature-Based Color Threshold Selection Approach to Pupil Tracking, 2017 IEEE MIT URTC

**June 2017** 

Accepted

## 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

## **ACTIVITIES/INTERESTS**

ukulele, 1/64 scale model collector, RPG video games, DIY projects