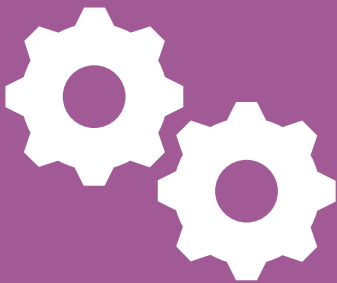


# ENGINEERING ROLE MODEL VIDEOS

## ABOUT THE PROGRAM

To address the problem of low algebra proficiency and limited engineering career awareness within Baltimore City Schools, Johns Hopkins University's Center for Educational Outreach developed the BOAST program – a strategy to extend learning time in afterschool or school day – and received funding from the NSF (DRL-2005790).

The Baltimore Online Algebra for Students in Technology (BOAST) program provides **high school students (Grades 9-12)** opportunities to develop mathematics mastery and confidence through an algebra-for-engineering, problem-based curriculum. The role model videos (one component of BOAST) develop students' engineering career awareness, offer insights into preparing for college, and provide reflection opportunities for how students' own background and interests fit into an engineering pathway.



Marian Singletary



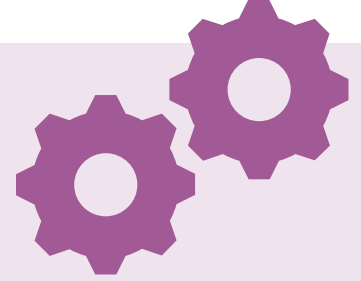
### Marian Singletary Reflection Questions

- What type of engineering does this person do?
- What was Marian's experience with facial recognition software?
- Why does diversity in a team matter when developing software?
- How did Marian pay for college?

## ROLE MODEL VIDEOS

Ten role model videos feature predominantly minoritized students, professors, and other professionals describing their work in engineering careers, how their interests developed, challenges they encountered, and how they persisted. Each role model video also has a series of reflection questions (see example above). Videos can creatively be integrated into classes, clubs, advisory periods, and more.

# OUR ROLE MODELS



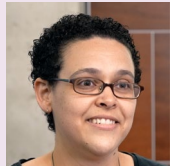
**JEREMY BROWN**

Mechanical Engineering



**DWIGHT CARR**

Electrical and Computer Engineering



**JULIA CARROLL**

Civil Engineering



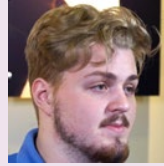
**JANAY FRAZIER**

Optical Engineering



**ERICA HAYES**

Systems Engineering



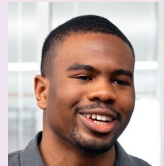
**DUNCAN PARKE**

Electrical Engineering



**KAROL PIERRE**

Cybersecurity Engineering



**TOBI MAJEKODUNMI**

Mechanical Engineering



**MARIAN SINGLETARY**

Computer Engineering

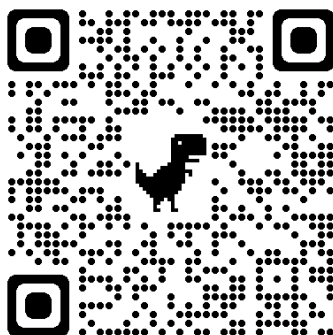


**MICHAEL VLADIMIROV**

Civil/Mechanical Engineering

## ACCESS THE RESOURCE

Use the following QR Code to access the videos, reflection questions, and video transcripts:



## GET IN TOUCH

[STEMoutreach@jhu.edu](mailto:STEMoutreach@jhu.edu)

**Alexis Daniels**, Program Administrator

**Alli Reigel**, Instructional Coach

**Margo Williams**, Instructional Designer



**JOHNS HOPKINS**  
WHITING SCHOOL  
of ENGINEERING

Center for  
Educational Outreach