



Internship work experience at WMATA



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Mechanical Engineering

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Introduction

Working at the Washington Metropolitan Area Transit Authority has given me many opportunities to explore what is like to be a Mechanical Engineer in the workforce. I learned about how one can review potential changes, approve, and implement them in order to keep the transit system updated and effective.

Activities:

I worked on 3 main tasks. The first task was reviewing a modification to the brake controller of the older 3000 series trains. This involved contacting the correct people to understand how the part works and how I could create a design to remedy the problem of corrosion. The second task involved assisting in overhauling the document database to a more user friendly one. The final task I helped with was a hands on experience as a test engineer gathering data to find out how various filters affect the airflow and spread of disease in trains.

Issues Confronting Site:

Some of the issues that confronted the site were:

- An outdated database for documentation of parts, modifications, and protocol.
- Old series trains having increased amounts of wear and tear
- New series trains needing more effective airflow and sanitation systems

Impact:

The impact of my work was made clear by my supervisor. Everything that I did represented the company and helped push them towards the goals of improving american public transit. For WMATA, my work helped make the communication between employees easier, and helped directly improve the safety of the trains by reducing corrosion in parts. This experience also had a profound effect on how I view my role in society and what I can do to contribute. I have taken to heart the values of communication and dedication.



Brake controller parts that were in need of modification

Site Information:

Name of Site: Washington Metropolitan Area Transit Authority - Greenbelt yard

Address: 5801 Sunnyside Ave, College Park, MD 20740

Your supervisor: Anthony Johnson

The site mission: Improve systems supporting American public transit

The particular goals of the site you were at: Write documentation to improve parts, improve document database, and gather information on how we can make public transit safer.

Left: Inside of a train that is being prepared for testing at the railyard, Right: Office of engineering where I spent time writing documents

Future Work:

My work with WMATA has enabled a more efficient workflow at the engineer's office, improved safety protocol in trains, and helped remedy some of the issues that are plaguing the aging 3000 series trains.

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