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The field of electrical engineering is going in several new directions, day by day. It is a vocation which focuses on the creation and application of electronic devices and systems which use electricity and electromagnetism. It emerged as an occupation after the telegraph was commercialized, along with the power generator

Katie Pfeiffer, electrical engineer at Naval Surface Warfare Center's Crane Division, has inspired me to dive into research and start to study the field of electrical engineering. Her enthusiasm, knowledge, experience, and the way she talked about it in such an interesting manner has piqued my interest. Her ability to effectively communicate her field of work in a well-thought out manner was motivational and invigorating. Naval STEM is creating and developing new ideas to increase the combat readiness of the United States Navy and Marine Corps.

I have completed a lot of electrical work in my home, on cars, industrial buildings, and home appliances in my life. I have worked on older to newer model cars and trucks, as well as semi-trucks. I have learned various methods of completing this work and have found each to be intriguing. I have asked for no payment for my work; as I have always strongly disagreed with taking money from those that I owe a debt to.

Michael Faraday, who perpetuated the Law of Induction, concluded that the amount of voltage in a circuit is proportional to the value of the change in the magnetic field within the circuit. George Westinghouse, a prominent pioneer in electrical engineering, discovered the alternating current which is still used in homes across the world today. Another part of the initiation of electrical engineering, the light bulb, was invented by Thomas Edison. Electrical engineers work on a large variety of items from tiny microchips to huge power station generators. Ohm's law, which states that the electrical current between two conductors is directly proportional to the voltage applied, is still in use by many electrical engineers and electricians.

Electrical engineers today design electrical devices and systems using basic components such as conductors, magnets, switches, resistors, capacitors, diodes and transistors. Microprocessors in your phone use these basic components, among others. Some critical skills needed in electrical engineering include an in-depth understanding of the theories of electrical and electronics and mathematics.

Mathematics is used with calculating the amount of materials required and the dimensions of the device being produced. Mathematics is also used in the formulas for electrical currents, resistivity and circuitry. Science is used mainly with the electrical current's power and density needed or produced. It is also used for the control of said current and its directionality and division. Different languages are used to represent different components of measurement. The ohm is indicated by the Greek letter omega (Ω).

Finally, the opportunity to attend school to further my education and understanding of electrical engineering will be a very helpful experience and a new challenge. My desire to join the United States Navy allows me to look forward to, and anticipate, attending classes to earn my degree in electrical engineering and certification in welding. I will also be looking to obtain a certification in auto mechanics. I plan to use these to aid the United States Navy and Marine Corps to become more efficient in combat readiness and global peace. This has been my dream and goal for many years and I wish to

see it through to completion. America is the country of my birth and I would like to see her safe for years to come.