

Crown castle, a telecom company based out of Houston, focuses on engineering in areas such as radio frequency, structural, fiber, and data science. They create infrastructure like antennas, towers, and edge data centers, with their primary focus on cell towers and small cells. Small cells are a key focus for Crown Castle as they allow for more devices to operate in a given area, boosting the capacity of cell towers. The company's customers include cell phone companies, Wall Street firms, hospitals, schools, and other entities, and they have a valuation of \$90 billion and revenue of \$6.3 billion. They are also on the S&P 500, making them a large and notable player in the industry. With 5G and the Internet of Things (IoT) driving growth, Crown Castle sees a significant opportunity for expansion. Their RF engineering team designs for coverage, bandwidth, and capacity, using software tools like 3D modeling and RF simulation to create site-specific solutions. They also do a lot of traveling as part of their job. Structural engineering is another key area for the company, especially with small cells in dense urban areas. Structural analysis is critical in determining the physical stress of a tower, taking into account loads like equipment, wind, ice, and seismic events. To become a structural engineer at Crown Castle, one must pass a structural engineering exam. Fiber engineering is also a critical component of the company's operations, with a network lifecycle that includes preparing, planning, designing, implementing, operating, and optimizing fiber networks. Finally, data science is an increasingly essential area of focus for the company, with a focus on big data, machine learning, predictive models, and statistical analysis. Crown Castle offers internships to sophomores and juniors, with a ten-week period from June to August. They have numerous roles available, including civil engineering, data science, fiber engineering, project management, RF engineering, robotics engineering, and more.