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This paper will demonstrate how the programming and graphics capabilities of a Computer Algebra System (CAS) can be used by students in a Numerical Analysis course to construct and modify an airfoil using actual airfoil geometry data obtained from the National Advisory Committee for Aeronautics (NACA). By using a short Maple program a parametric cubic spline will be generated which interpolates the given data. The graphics capabilities of Maple will then draw the given airfoil. By modifying the data set, students can "correct" any imperfections in the constructed airfoil. In a matter of seconds students can see how their modifications change the geometry of the airfoil. (Received September 13, 2000)