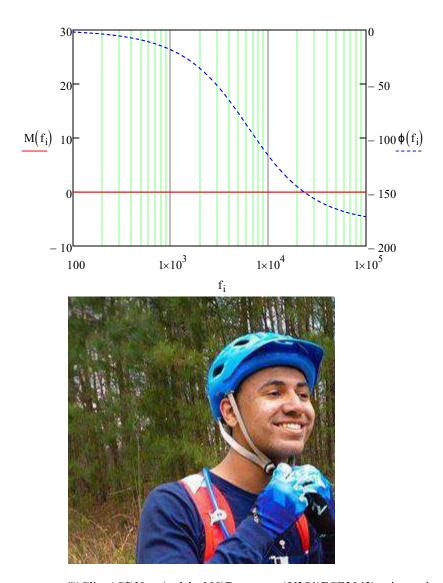
$$\begin{split} f_{crit} &:= 6.22 \text{kHz} & \quad f_0 := f_{crit} \qquad j := \sqrt{-1} \qquad \underset{\text{\mathbb{K}}}{\text{\mathbb{C}}} := 0.015 \mu \text{F} \qquad \underset{\text{\mathbb{K}}}{\text{\mathbb{K}}} := 1 \\ \\ R &:= \frac{1}{2 \cdot \pi \cdot \text{C} \cdot f_0} \qquad \qquad \underset{\text{\mathbb{K}}}{\text{\mathbb{T}}} (f) := \text{K} \cdot \frac{1 - j \cdot \frac{f}{f_0}}{1 + j \cdot \frac{f}{f_0}} \\ \\ f_{start} &:= 100 \text{Hz} \qquad \qquad f_{stop} := 100 \text{kHz} \qquad \underset{\text{\mathbb{N}}}{\text{\mathbb{N}}} := 1024 \qquad i := 0 .. \, \text{N} - 1 \quad f_i := f_{start} \cdot \left(\frac{f_{stop}}{f_{start}}\right)^{\frac{i}{N-1}} \\ \\ M(f) &:= 20 \cdot \log(\left| T(f) \right|) \, \phi(f) := \frac{180}{\pi} \cdot \arg(T(f)) \end{split}$$



 $\label{lem:charge_pg} $$ \Client\C\S\Users\caleb_000\Documents\Y3S1\ECE3043\meimage.jpg" $$$