AirfoilGmsh

New Julia package for airfoil meshing automatization

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Why AirfoilGmsh?

- Automatization of structured mesh for airfoils
- Avoiding routine operations
- Creates .geo file for GMSH

geo file, ≈ 200 code lines

```
Point(65) = {0.96194*Cos(AoA) + -0.00463*Sin(AoA),-1* 0.96194*Sin(AoA) + -0.00463*Cos(AoA),0
Point(66) = {0.98296*Cos(AoA) + -0.00218*Sin(AoA),-1* 0.98296*Sin(AoA) + -0.00218*Cos(AoA),0
Point(67) = {1.0*Cos(AoA) + -0.00057*Sin(AoA),-1* 1.0*Sin(AoA) + -0.00057*Cos(AoA),0.0,a_dim
Spline(1) = {1:26};
Spline(2) = {26:42};
Line(3) = {1, 67};
Spline(4) = {42:67};
Point(68) = {0, C, 0};
Point(69) = {0, -C, 0};
Point(70) = {L, C, 0};
Point(71) = {L, -C, 0};
Point(72) = {1.0, C, 0};
Point(73) = {1.0, -C, 0};
```

msh file, ≈ 20K code lines

```
$Entities
82 29 11 0
1 1 0.00057 0 1 6
2 0.9829599999999999 0.00218 0 0
3 0.96194 0.00463 0 0
```