



Catherine Alvord

Puppets/Animatronics/Props

2020





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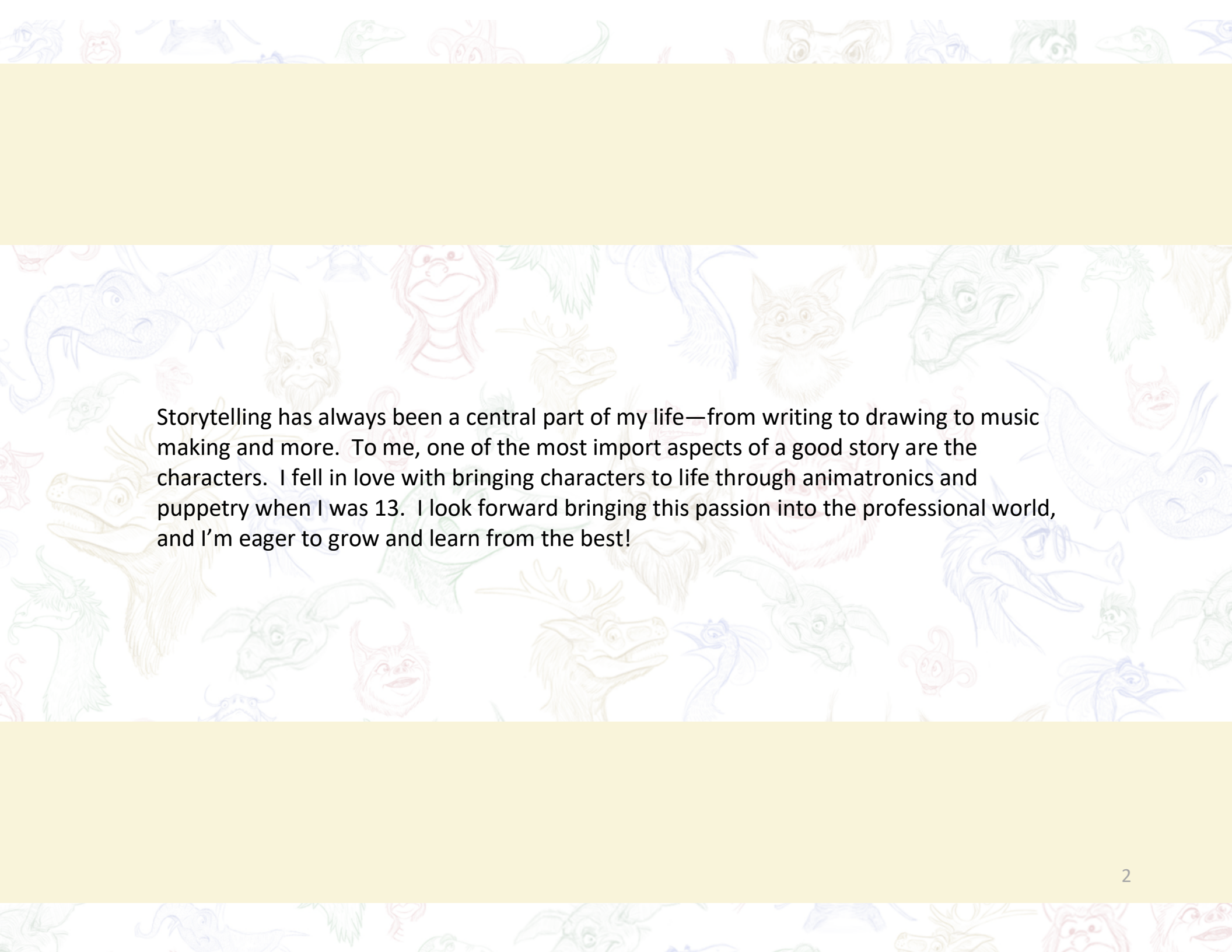
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The background of the slide is a repeating pattern of various stylized animal heads and faces in different colors (blue, green, orange, pink, purple). These include creatures like dragons, dinosaurs, and fantastical beasts. A solid yellow horizontal band runs across the top of the slide, and another solid yellow horizontal band runs across the bottom.

Storytelling has always been a central part of my life—from writing to drawing to music making and more. To me, one of the most important aspects of a good story are the characters. I fell in love with bringing characters to life through animatronics and puppetry when I was 13. I look forward bringing this passion into the professional world, and I'm eager to grow and learn from the best!



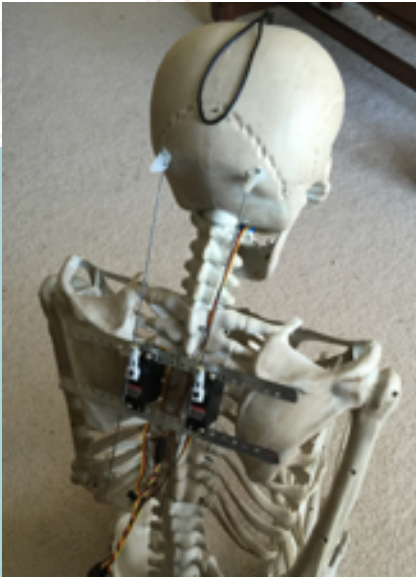
# *Skeleton Pirates Halloween Display*

(Animatronics)

Created: 2015







- 4 animatronic characters
  - Moving jaws
  - Head up/down, tilt left/right
- Characters preform a 5-minute show I created with various audio/music clips
- Electronics
  - Analog servos
  - SSC-32 board
  - Sending and CAT6 boosted receiving boards with ethernet cables
- Software/Programming
  - TrackSkull by MonkeyBasic
  - VSA by Brookshire



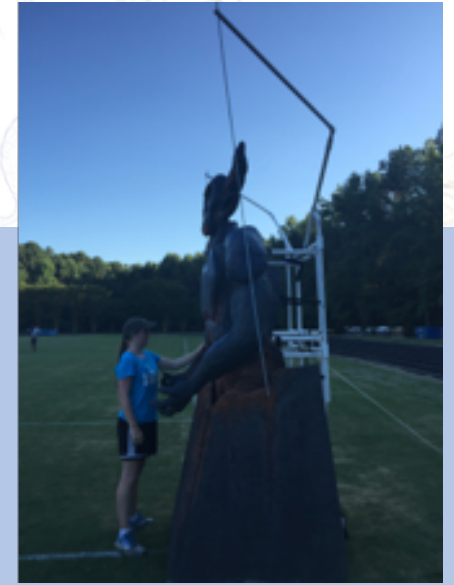
# *Chernabog – from Disney's Fantasia*

*(High School Marching Band Prop)*

*Created: 2016*







- 12 ft prop
  - Wings open/close
  - Eyes illuminate
  - Moved around field during show
- Materials: masking tape and paper, foam, spray paint, on a PVC structure.



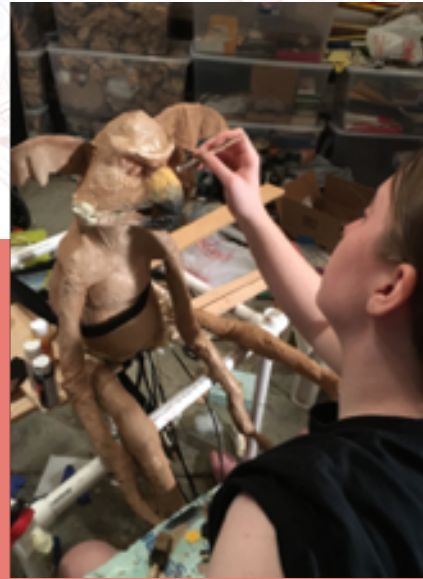
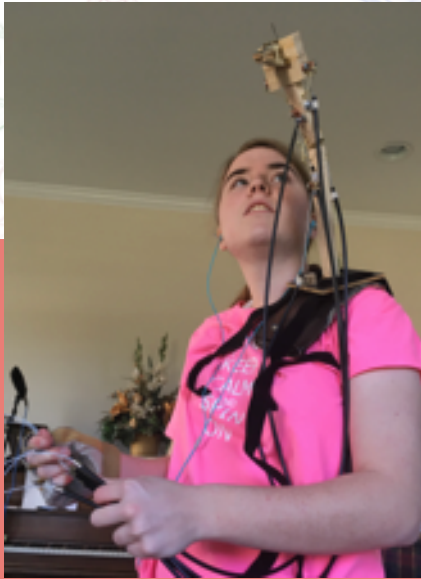
## *Salacious B Crumb*

*from Star Wars Episode VII: Return of the Jedi*  
(Cable Controlled Puppet)

Created: 2017







- Cable puppet that rode on my shoulder with two controllers concealed at my waist
  - Head left/right, up/down
  - Body lean forwards/back
  - Upper and lower jaw (separately controlled)
- Mp3 + speaker (hidden in cloth) for laughter
- Materials: masking tape and paper, wood, acrylic paint, rubber bands, bicycle brake cables.

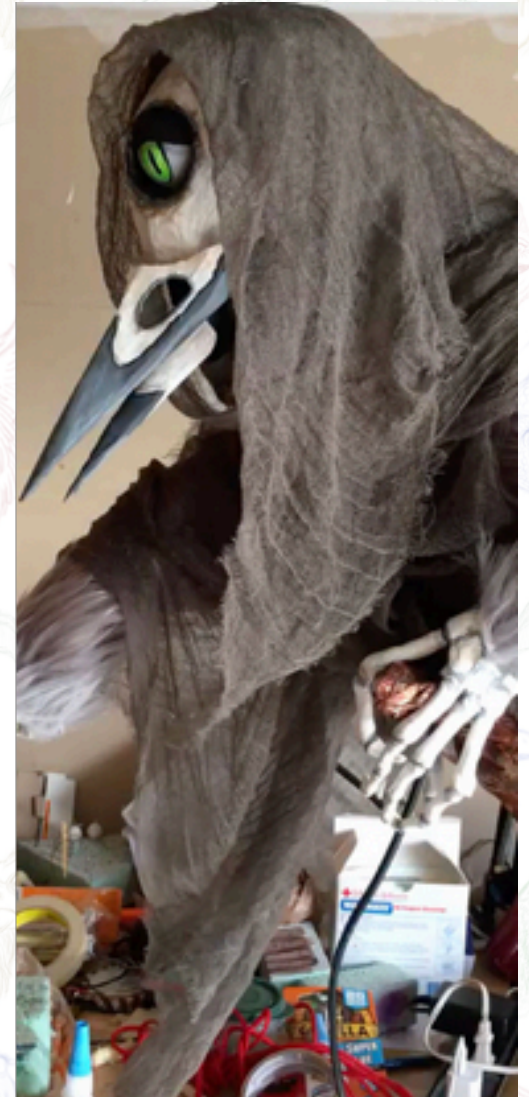


# *Corvus – Original Creature*

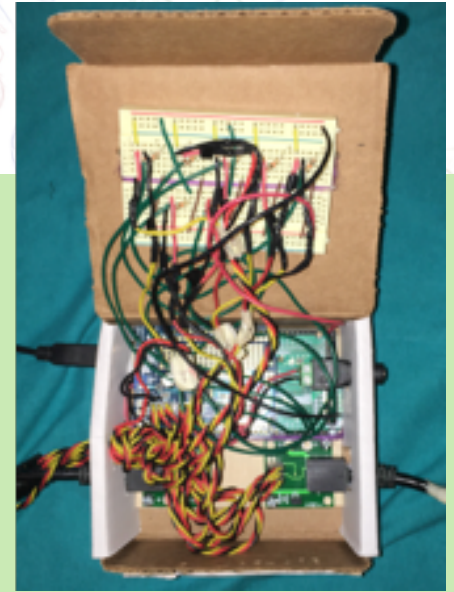
*(Animatronic Puppet)*

*Created: 2017*

*Rebuilt/Updated: 2018 and 2019*







- Battery powered animatronic
  - Head up/down, left/right, tilt
  - Mouth open/closed (top and bottom beak)
  - Blink, eye left/right
  - Arm sweep in/out (cable controlled)
- Originally controlled by Wii Nunchuck
  - 2019 update: controlled by flex sensors in a glove
- Powered by a portable phone charger
- Electronics:
  - Arduino Atmega 2560 + Servo Shield
- Software/Programming
  - Arduino



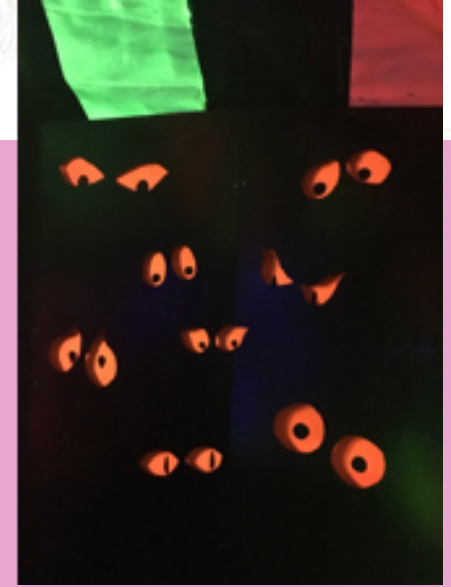
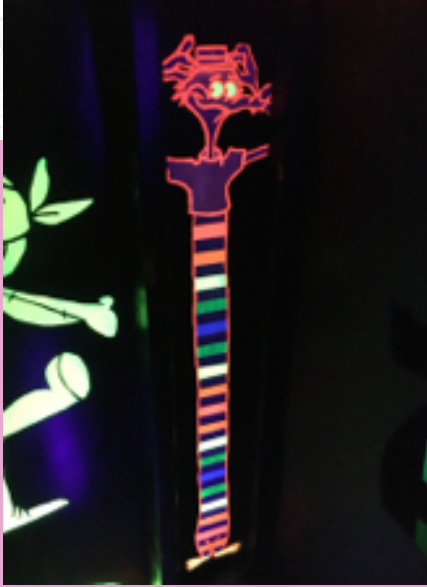
# *Heffalumps and Woozles 3D Halloween Walkthrough*

Characters from "The Many Adventures of Winnie the Pooh"

Created: 2018







- Joint project with my sister
- 25 ft wooden tunnel shaped like “W” with:
  - 22 painted characters
  - Wooden cutouts
  - A “follow-me-eyes” effect
  - An infinity mirror illusion
- UV fluorescent paintings that appear 3d with Chromadept Glasses



# Concepts and Designs



*Left Page:*

- *Top left:* Creature concept (digital + pencil sketch)
- *Right:* Cable puppet concept and blueprint (digital + pencil sketch)

*Right Page:*

- *Top Left:* Figment Maquette, character belongs to Disney (Monster clay)
- *Top Right:* Creature/character concept (pencil sketch)
- *Bottom:* Creature designs (digital)

