Resume

Jess Sullivan
jess@sulliwood.org | Linkedin | Blog | Github | Consulting

Work history, clients and superlatives include:

Computer Vision Software Engineer @ Macaulay Library (2019-2021)

- Developed & launched **Merlin Sound ID** & The Machine Learning Blog @ Macaulay Library. Worked on the R&D and implementation of internal fine-grained machine learning annotation tools for audio classification. Built internal classification and model evaluation web APIs. Streamlined Macaulay Library MLOps and asset ingestion pipeline.

Fabrication Laboratory Manager for the Landscape Architecture Makerspace @ Cornell CALS (2021-2022)

- Developed and taught rapid fabrication curricula for DLA students and faculty.

Consulting & Contracting

- Developed web GIS tools used by the **National Park Service**, **Foundation for Healthy Communities**, **GPRED**, the **Northern Border Regional Commission**, presented at the 2019 **AAG conference**
- Numerous contributions to open source projects including **Klipper** Firmware, **Joplin** & **FFT.js**
- Work with startups including **Dover Micro** (2017) and **Adaptive Motorsport** (2018) and the creation of numerous FOSS automation tools and GIS utilities on Github
- **Machine Learning** with **MushroomObserver.org** and **Visipedia:** Collaborated on the development and adoption of fine-grained image classification models among crowd-sourced community science niches

Volunteer, community involvement and board positions

- **First Fellow @ the D&M Makerspace at Plymouth State University ("PSU")** (2017-2019)
  - Taught **Advanced GIS Programming** & **Intro to Electromechanics** at PSU
- **Membership Chair** and **3d Printing Captain** of the Ithaca Generator ("IG") (2020 – 2022)
  - Led IG, a local 501(c)3 non-profit Makerspace through a period of rapid growth, profitable outreach and massive educational expansion
- I remain an active member of the **Voron**, **Annex Engineering**, **Klipper**, **Mainsail**, **Railcore**, **Doomcube**, **Kralyn3d**, **Rack Robotics** & **Millennium Machines** open source rapid fabrication developer communities
- I have coached hundreds of students though my popular, portable & public-facing "**Fusion 360 for 3d printing**" class series throughout New York

3d Modeling & 3d Geoanalytical technical experience:

- Over **7 years** of professional experience modeling, simulating and scripting and teaching popular CAD packages including **Fusion 360 & Inventor** (python & C++), **Sketchup** (Ruby), **Meshmixer**, **openscad**, **ArcMap** & **ArcGIS**, **QGIS** and **Blender**
- On-demand, one off 3d modeling and printing services
- Exotic material 3d printing (e.g. **annealed thermoplastics**, **end-use polypropylene** parts, **PEG phantom network synthesis**, **sintered metal FDM printing**), bespoke machine tool design & rapid prototyping
- **Over a decade** of professional and personal experience with **ultra-secure personal computing**, esoteric network protocols and the implementation of **personal DaaS stacks**.

Full stack development technical experience:

- Extensive work within **Flask** and **Express** based stacks; fluent with **Python** & **TypeScript**
- Templating engines including **Pug**, **Jinja2** and **Hugo**
- Integrations with the **Stripe** APIs, **oauth**, **Duo,** common G-suite applications and MembershipWorks
- **Over 8 years of professional & enterprise** experience with WordPress and deployments to **AWS** (EC2, Lambda, Beanstalk), **GCP**, **Digital Ocean** & **Heroku**; extensive work with **Nginx**, **Apache2**, **mongodb** & **postgres**
- ESRI web services (storymaps, ArcGIS pro, Arcade expression language)