Griffith **Baker**

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Education

North Carolina State University   *Raleigh, NC*
BACHELOR OF SCIENCE IN COMPUTER SCIENCE   *Aug. 2020 - May. 2024*

- Minor in Cognitive Science, Concentration in Cybersecurity
- Dean's List (Fall 2020 - Present)

Work Experience

InStryde   *Winston Salem, NC*
COMPUTER VISION ENGINEER   *May. 2021 - Present*

- Designed and implemented a scalable solution to extract data points from a 2D image using multiple machine learning models and computer vision post-processing techniques.
- Saved the company over $700 per cloud instance by integrating CPU support for all ML models.
- Designed and implemented a REST API for model processing and proxying client requests to 3rd-party services.
- Setup and managed continuous delivery, health checks, and scaling for backend on a major cloud provider.
- Led development of frontend React scanning software with custom Real-Time ML to capture a clean image automatically.

Skills

Languages   Python, Javascript, Java, C, HTML, CSS
Tools   React, Docker, OpenCV, Numpy, PyTorch, Selenium, Git, GCP, FastAPI, Flask, Jenkins, Linux, Nginx, LaTeX

Projects

Sustainable Recycling Project - Samsung Solve for Tomorrow   *Durham, NC*
NEURAL NET COMMITTEE LEAD   *Jan. 2020 - Jun. 2020*

- Won National Finalist Prize of $150,000 in technology and supplies for NC School of Science and Math.
- Created an app using Flutter that uses image processing and machine learning algorithms to help people separate recyclables and non-recyclables.
- Trained models using Yolov3 and tflite for TensorFlow which allowed for real-time, multiple object detection using a top down approach (looks at a whole photo instead of pixel by pixel).
- Part of the three person national pitch presentation team, delivered layman explanation and overview of testing and evaluation methods.
- Led development of frontend React scanning software with custom Real-Time ML to capture a clean image automatically.

PERSONAL PROJECTS

2019	**Flower Identification Network,** Another classification network that differentiated between 133 species of flowers with multiple objects detection in real-time.
2018-2020	**SiRI/STRI/WebAssignHW,** Collection of programs that keep track of upcoming assignments on various Learning Management Systems and add them to a task manager.
2020	**Reverse Engineering iOS apps,** Reverse engineered multiple iOS apps and injected custom dylibs to load on launch and modify various parameters of the application.
2018	**IoT Garage Door Opener,** Constructed a HomeKit compatible garage door opener from a low-cost Wi-Fi SoC, relays, and magnetic sensors to detect state.

Leadership Experience

Hack Davidson (Branch of The Hack Foundation) | FOUNDER   *Aug. 2019 - May. 2020*
Student Ambassador   *Sep. 2018 - May. 2020*
Eagle Scout Project Leader   *Jul. 2017 - Dec. 2018*
National Honors Society | LEADERSHIP TEAM   *Jul. 2019 - May. 2020*