### **Liam Nestelroad 719-640-2708**

### **Boulder, CO** [liam.nestelroad@colorado.edu](mailto:liam.nestelroad@colorado.edu)

<https://github.com/lnestelroad>

**Objective**

Career opportunity working on software development or data analysis; interested in machine learning, probabilistic inference, and development operations.

Education

**Dual Bachelors – University of Colorado Boulder, CO**

Computer Science and Applied Mathematics GPA: 3.491

**Skills**

**Languages:** Python, C/C++, JavaScript/Node, HTML, CSS, SQL, NoSQL, STAN

**Libraries:** NumPy, SciPy, Pandas, MatPlotLib, PyMC3, CherryPy, Flask, SQLAlchemy, UnitTest

**Methods:** Object Oriented, Functional Programming, REST/Graph API,

**Tools:** Ansible, Kubernetes, Vagrent, Docker, Unix/Linux

**Experience**

**University of Colorado Boulder – Laboratory of Atmosphere and Space Physics (LASP) 2018 – Present**

***Operations Software Intern***

* Technical project lead for developing and implementing a new message bus library and architecture to replace antiquated server communication tools
* Developed automation pipelines in TeamCity to standardize building, testing, and deployment
* Responsible for training new hires in web and database development
* Kickball Coordinator for student employees and willing professionals.

**Crebain Incorporated LLC**

***CEO/Founder* 2020-Present**

* Build and maintain web applications/production environments for local business and startups.
* Uses cloud hosting technologies for quick and easy deployment/accessibility.
* Utilizes both Node.js and Python for back-end services/database interaction.

**Charter Communication** **2018**

***Intern***

* Removed duplicates across multiple data sheets using Python and regular expressions.
* Revamped functionality on data center shipment catalog website using Angular/JavaScript via REST API

University of Colorado Boulder – Build a Better Book **2017 – 2018**

***Intern***

* Design and manufacture global 3D tactile books for blind children using 3D printers, laser cutters, braille printers.
* Utilize Solidworks, Inkspace, and CraftML to design pages, shapes, and textures.
* Mentor new hires on efficient printing/designing techniques and maintain lab equipment.

**Personal Projects**

**Data Analysis/Machine Learning**

* Implemented Bayesian inference algorithm for easier handling with probabilistic models.
* Regular use with PyMC3, SciKit-Learn, TensorFlow, and MatPlotLib for computer learning and data visualization.
* Data gathering and cleansing with Pandas and SciPy for mathematical modeling and further computation.

**Agatha**

* A set of software components which provides autonomous systems for house control and monitoring.
* Facial recognition software for a security system built with Python, OpenCV, and a Raspberry Pi.
* Integrated hardware into lights, locks, windows, sockets, and the garage door to provide a physical means for home interaction and monitoring.
* NoSQL databases for current food/supplies inventory and log aggregation.
* On site servers configured for cloud provisioning, PXE booting, data processing, and storage.

**CU 2020 Hackathon Honorable Mention**

* Helped develop a volunteer based food transportation web app for leftovers that businesses can donate to food banks.
* Built the database architecture/schema using a PostgreSQL instance.
* Helped style and deploy the public website.

**Clubs**

* GoldShirt Engineering Scholarship Recipient 2017 – Present
* SHPE/MAES 2017 – Present
* Boy Scouts of America – Eagle Scout 2013 – 2017