Liam Nestelroad

Boulder, CO

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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