

Benjamin Thayer

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WORK EXPERIENCE

Stackend Solutions | *Chief Executive Officer* January 2021 - July 2022

- Ran profitable software consultancy with **\$250k+ annual revenue**, building **web and mobile apps for startups**
- Managed business by **negotiating contracts, hiring, improving processes, and creating/managing timelines**
- Increased developer efficiency by implementing **Scrum** and allocating dev time to creating **internal libraries**
- Improved responsiveness to clients by creating and documenting a standardized client communication process
- Supervised projects using technologies including **Python, Django, Docker, React.js, Web3** and **NFTs**

Stackend Solutions | *Chief Operating Officer* March 2020 - December 2020

Stackend Solutions | *Project Manager* December 2019 - February 2020

Independent Consulting

- Servant Financial - Aided **due diligence** on a **\$50M+ biotech equity investment deal** by writing a report on the patentability of and differences between **deep learning** algorithms and **evolutionary algorithms**
- [Algorithmic Trading Company] - Used statistical correlation to audit backtesting methodology

Ship.Cars | *Data Scientist* June 2019 - August 2019

- Developed search algorithm using **Python, Pandas, SciPy** and **SQL** to improve car carrier utilization by 30%
- Used vector projections and meet in the middle approach to find optimal carrier loading during 250+ mile trips

Ship.Cars | *Chief Executive Officer* August 2017 - December 2018

- Reduced product decision complexity by **translating technical concepts into terms the owner understood**

Jump Trading | *Legal and Compliance Intern (Software)* June 2015 - May 2017

- Performed ETL operations on 500M+ rows of transaction data using **Python, Bash, SQL** and **Splunk**
- Developed a web dashboard using **Python, Django** and **jQuery** to filter and illustrate high-stakes reporting data

EDUCATION

University of Illinois at Urbana-Champaign | BS Engineering Physics *Graduated August 2022*

Minor in *Mathematics* | Minor in *Computer Science*

Specialization in *Engineering Entrepreneurship* | Specialization in *Energy and Sustainability*

CLUBS

Open Source @ Illinois | *Founding Board Member* Fall 2019

- Grew organization from 0 to 18 active members by serving as Interim President and Outreach Officer
- Built club website **deployment system** using **Docker** and **CI/CD** and 3 **microservices**

Student Space Systems | *Thrust Vector Control (TVC) Software Project Manager* Fall 2016 - Spring 2018

- Lead a team of 6 students to develop and test a thrust vector control system on a student-built space-faring rocket
- Coordinated with electrical and mechanical project teams to develop methods of designing/testing a TVC system

PROJECTS

Machine Learning Projects

- Rocket League AI - Trained a reinforcement learning agent to drift in Rocket League using a Deep Q Network
- Day of Week Prediction - Explored effect of different training datasets on deep neural network accuracy
- Policy Gradient Blog Post - Wrote a blog post to explain policy gradient method for reinforcement learning

Non-Machine Learning Projects

- Git Gud - Used Python, unit tests and CI/CD to develop an 18-level game to teach Git with 300+ stars on GitHub
- Hackerrank Algorithms - Wrote optimized C++ code to solve 4 of the hardest algorithms problems on Hackerrank
- Personal Server - Used Ubuntu with NGINX to deploy 20+ personal micro-applications, websites and tools
- Various Weekend Projects - Experimented with Javascript, Python, C++, Go, Docker, Redis, Firebase, Linux, etc
- Open Source Contributions - 4x merges to Jupyter Notebook, 3x merges to JupyterLab, 1x merge to Pandas

SKILLS & INTERESTS

Technical Skills: Python, Bash, SQL, C/C++, Tensorflow, Keras, NumPy, Pandas, CI/CD, Docker, Linux, Git, Vim

Courses & Certs: Udacity - ML Nanodegree, DeepMind - Intro to Reinforcement Learning, Coursera/Andrew Ng - ML

Management Skills: Technical Communication, Balancing Stakeholders, Documentation, Business Strategy, Scrum