Sean Hartrich

T: 847-650-4959
E: snhartrich@gmail.com
shartrich.pythonanywhere.com
www.linkedin.com/in/seanhartrich/
https://github.com/shartrich

OBJECTIVE

To bring my analytic, programmatic, and problem solving skills to an engineering role with an organization that values innovation and fosters community.

EXPERIENCE

Applications Engineering Intern — *May 2018 – Present*

Zuora - San Mateo, CA

Engineered internal applications with Java, Python, and Apex for multiple Zuora teams, from specifications to production. Spearheaded engineering, data science, marketing cross-functional task force, designing and implementing triggers to monitor customer product utilization. Collaborated with product team to help standardize front-end process using Angular componentization. Constructed end-to-end Node.js APIs, migrating data from Salesforce Development Center (SFDC) into Insights analytics platform. Coordinated with Applications team for regular sprint planning, code-reviews, and other Agile practices.

Data Analytics Specialist — *May 2017 – May 2018*

NRT LLC - Deerfield, IL

Directed process automation for day-to-day reporting and transaction processing roles. Engineered Python report generating platform to automate and customize internal reporting. Redesigned internal performance tracking and delivered informative, interactive dashboards for multiple KPIs for all 27 US companies. Developed experience-based, quantitative productivity expectations for 200+ full-time employees (FTEs). Engineered staffing resource models for centralization to determine when to hire/train 128 new FTEs. Authored ad-hoc reports to senior leadership including COO and CFO.

Operations Data Analyst Intern — *May 2016 – March 2017*

U.S. Venture - Appleton, WI

Streamlined weekly and monthly site performance reports. Performed comprehensive analysis of power utilization resulting in significant tax savings (~$120k/year). Restructured site service protocol and data management for 54 North American locations with regression analysis model. Provided corrective actions for CNG equipment and used quantitative analysis to evaluate improvements. Modeled and optimized equipment lubricant and electrical consumption by forecasting demand.

EDUCATION

B.S. Industrial and Systems Engineering — August 2014 - *May 2018*

Georgia Institute of Technology - Atlanta, Georgia — *Graduated with High Honors*

SKILLS

Coding/Software:

- **Python**: Data wrangling/analytics & machine learning with **Pandas**/**Scikit-learn**; constructing web applications and APIs using **Django** and **Flask** frameworks; API interactions with requests
- **SQL**: Building complex/dynamic queries across variety of object query languages
- **JavaScript**: Creating interactive websites; handling the DOM; using **Node** to design server environments and web APIs; working knowledge of handling components, props, and state in **React**
- **Java** & **Apex**: Rapid object-oriented page/component construction in SFDC
- **General Proficiencies**: Composing **HTML** and **CSS**, version control, Agile using **Jira**, bash scripting
- **Platforms/Tools**: Salesforce, Tableau, Cognos

Current Learning Interests: Cassandra, Kafka/Spark, NLP and text analysis

UNDERGRADUATE RESEARCH

Friedrich-Alexander-University Erlangen-Nürnberg Discrete Optimization Open Research Challenge:
Used python/regression with Gurobi optimization suite to redesign southern Germany train schedule (reduced network electricity consumption 8%). Desynchronized arrivals from departures to maximize regenerative braking.

MAJOR ACADEMIC PROJECTS

- **Senior Design with Nolan Transportation Group:** Collaborated with team of 7 other students to design a real time LTL/drayage ride-sharing algorithm pairing mechanism. Built RESTful API with Python's Flask to identify compatible trips. Extensive Python coding to merge on-route, compatible partial loads into full truck loads. $600,000 annual cost savings
- **Georgia Optimal Energy Portfolio:** Co-developed a model for Georgia energy infrastructure based on emission standards, expected production costs, etc. with Xpress Suite
- **Transportation Network Linear Model:** Directed team to implement linear modeling (coded via Xpress Suite) to optimize a trucking company's optimal 10 year asset plan
- **Trains Relational Database:** Used Python and SQL to design and code a functional commercial train network system (similar to Amtrak); functional booking and train assignment; functional GUI user interface

Professional References

Brad Bixby
Senior VP Commissions Processing - NRT LLC
(773) 203 – 8206
Brad.Bixby@cbexchange.com
Former Supervisor

Learn more about me on my website: http://shartrich.pythonanywhere.com/