Ryan M. Burns

ryanmburns93@gmail.com
(847) 909-8481 - Fort Collins, CO
ryanmburns93.github.io - linkedin.com/in/ryanmburns93

PERSONAL SUMMARY

Experienced Data Scientist with a proven ability to design, train, and evaluate custom state-of-the-art generative AI models and leverage distributed HPC resources to scale deep learning models for production. Strong background leading project teams through the entire data science lifecycle and delivering insightful narratives directly to clients.

PROGRAMMING & TECHNICAL SKILLS

Project Highlights   **More projects & code available at** ryanmburns93.github.io

Generative AI Healthcare Pathway Modeling
- Trained a GPT-2 language model on health condition event sequences to learn underlying disease progression pathways. Customized tokenizer and generative models for tasks including sequence classification for high-cost claimant classification, provider rank ordering, and at-risk population analysis.

Health Insurance Claims Denial Neural Network
- Designed custom transformer-based model architectures targeted to predict insurance claim denials and denial reason codes. Achieved high performance metrics on both the binary and multiclass targets and productionalized both models for daily batch inference on incoming client claims using MLFlow and AWS.

Lease Renewal Modeling
- Modeled the likelihood an apartment resident will renew their lease by renewal offer price and connected leasing and operational cost models to optimize pricing and deliver recommendations to property managers.

Language/Software	Competency	Applications
Python	*Expert*	AI, NLP w/ PyTorch, TensorFlow, HuggingFace, data mining/processing
SQL	*Expert*	Query and data manipulation in RDBMS, NoSQL, and graph databases
Scala	*Expert*	Dataset and feature design, model pipeline training and QA testing
Cloud DevOps	*Intermediate*	AWS s3 data storage & SageMaker modeling, Azure serverless app build

PROFESSIONAL EXPERIENCE

Certilytics, Leading healthcare predictive analytics partner improving patient outcomes   **Mar 2023 – Present**
Data Scientist
- Apply cutting-edge AI, ML, and NLP techniques to build client-tailored models predicting member health outcomes, system utilization, and cost savings for more than 100 conditions and over 30M patients weekly.
- Design, scale, and automate ML-Ops processes for model suite retraining, QA testing, and monitoring.
- Deliver model results and actionable insights directly to clients, serving as a subject-matter expert and trusted partner to advance product adoption and identify new projects and additional business opportunities.

AIR Communities, Fourth-largest U.S. apartment REIT with 96 communities in 12 states   **Nov 2021 – Mar 2023**
Innovation & Automation Associate
- Designed predictive models for business stakeholders as the project lead through the full data science life cycle. Automated data collection, cleansing, and storage, applied AI/ML tools and measured model performance, and deployed and maintained models in production using DevOps best practices.
- Reduced database migration QA project staffing by 15 employees via scripting automated validation tests, constructed Power Apps for visitor record and maintenance ticket continuity during system downtime.

Gartner, Inc., World's leading research advisory company with annual revenue of $4B   **Aug 2017 – Oct 2021**
Client Success Partner   2 years
- Diagnosed top challenges of ~150 C-suite finance, procurement, and real estate executives representing a client territory of $4.5M contract value. Tailored client experiences delivering relevant benchmark research.

Associate Client Partner   11 months
Account Management Associate/Specialist   6 months/6 months

EDUCATION

Northwestern University, *Evanston, IL*   **Master of Science, June 2022**
- M.S. in Data Science, Artificial Intelligence Specialization (GPA: 3.67)

Duke University, *Durham, NC*   **Bachelor of Arts, September 2017**
- B.A. in Public Policy Studies, Minor in Political Science (GPA: 3.35)