Kevin Blansit, C.Phil.
Machine Learning Engineer/Data Scientist

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BIOGRAPHY:

Experienced Ph.D. machine learning engineer/ data scientist, with a unique specialization in healthcare, digital health, and life science solutions.

TECHNICAL SKILLS:

Languages: Python, R, SQL (SQLite, postgresql), C++
Machine Learning Frameworks: Tensorflow, Keras, scikit-learn, xgboost
Assorted Frameworks: Flask, Django, numpy, pandas, sqlalchemy, ggplot2, unittest, Docker, git
Specializations: machine learning design and deployment, model calibration and performance testing, machine vision, data cleaning/aggregation, distributed cloud computing (AWS/Azure), virtualization, Linux administration

EDUCATION:

UC San Diego Bioinformatics -- Biomedical Informatics (Ph.D.) Exp. Fall 2020
UCLA Health Policy and Management (M.S.) June 2016

- UCLA Med Tech Innovation (Winter/Spring 2016) -- Two-quarter course providing graduate biomedical training in: identification of market opportunities, medical design, startup funding and accounting, and product development.

UC Davis Biochemistry and Molecular Biology (B.S.) Dec. 2011

PROFESSIONAL WORK EXPERIENCE:

***Graduate Researcher* - UC San Diego - La Jolla, CA** 2016 – Present

- Lead development/prototyping of cardiac MRI 'autopilot' using convolutional neural networks, localizing cardiac landmarks within <1cm
- Developed novel machine learning algorithms to improve neural network data-efficacy
- Mentored new lab members for machine learning engineering, leading to self sufficiency (<2 months)
- Productized prototype into clinical practice with industry collaborators (G.E. Healthcare)
- Implemented modern testing and integration for legacy platform
- Managed clinical implementation and real-world performance evaluation for FDA regulatory compliance

***Programmer* - UCLA - Los Angeles, CA** 2014 – 2016

- Lead programming for CalSIM, an agent-based health insurance micro-simulation
- Implemented python/numpy code to model economic agent behavior
- Oversaw performance testing and optimization
- Migrated existing codebase from SAS to Python/R

***Research Associate* - Palo Alto Medical Foundation - Palo Alto, CA** 2014

- Lead biostatistical analysis of precision medicine treatment combination strategies
- Created statistical models for predicting costs and patient outcomes for surgical oncology
- Implemented SQL/R based ELT pipelines to interface with clinical data warehouse

***Research Associate* - UC San Francisco - San Francisco, CA** 2012 – 2014

- Developed cost effective health economics models for precision medicine therapeutics
- Identified clinically prognostic biomarkers in ovarian cancer
- Created bioinformatics pipelines using publicly available data (TCGA)
- Validated molecular oncology pathways in vitro (molecular wet lab work)

OTHER PERSONAL PROJECTS:

Kinect Exercise Classification

- Created C++ interface to Kinect device for recording body movement spatial data
- Used deep learning-based pipeline to classify exercises movement, achieving >95% accuracy

Voice Enabled Post-Operative Surgical Screening Monitoring Application:

- Developed a programmable voice dialogue interface (flask) for interacting with patient users using Alexa voice skill framework
- Created framework to integrate with modern healthcare FHIR standards
- Received American Medical Informatics Association award for design and creativity