CYRUS VAFADARI

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EXPERIENCE

Shoobx, Inc   2014 - Present
Module Owner: Equity   *Boston, MA*
· In charge of all equity-related features: e.g. Captable, Option grants/executions, ASC-718 filings
· Designed complex, multi-participant workflows that generate & execute legally binding documents
· Full-stack: Python back-end, AngularJS front-end, MongoDB, Postgres

Sookbox, LLC   2011 - 2014
Engineering Cofounder   *Cambridge, MA*
· Raised $1.2M to develop a home media streaming and playback solution
· Designed and wrote back-end in Python (rewritten from PHP)
· Designed platform for multi-node architectures, remote message calling, and data marshalling
· Recruited and managed team of 5 engineers, worked with CEO to engage firms in strategic partnerships

Compact Muon Solenoid, LHC, CERN   2010
Observation of Long-Range, Near-Side Angular Correlations in P-P Collisions   *Geneva, Switzerland*
· Predicting probability of piled-up vertices as a function of multiplicity in proton-proton collisions
· Analyzed over a billion collisions and Monte Carlo simulations in a grid-based C++ framework
· Discovered evidence of quark-gluon plasma in high-multiplicity p-p collisions, never before observed
· Journal publication: doi:10.1007/JHEP09(2010)091s

Dept. Molecular Biology, Mass. General Hospital   2009-2013
Radiation Resistance of Biological Reagents for In Situ Life Detection   *Boston, MA*
· Designed and executed experiments simulating cosmic radiation on a flight to Mars
· Irradiated over $40,000 of reagents with over 10 Gy of radiation from 5 different types of radiation
· Journal publication: 10.1089/ast.2012.0869

AWARDS AND PATENTS

H@cking Medicine   March 2014
Winner, "Best Use of Data" (largest cash prize)
· Designed a system for real-time data aggregation and analysis to quantify risks associated with diabetes

Patents   Filed January 2014
Co-Inventor
· Digital Content Connectivity and Control ... Discriminatively: US2014/0330951A1
· Configuring, Networking, and Controlling ... Unique Network-Capable Devices: US2014/0229625
· US2014/0195587 and US2014/0330951A1 (pending)

EDUCATION

MIT   *2012*
B.S. Nuclear Science and Engineering, 4.6/5.0

Monte Carlo Methods for Parallel Processing of Diffusion Equations   2012 - 2013
Thesis   *Cambridge, MA*
· Modelled neutron flux in reactors as systems of differential equations approximated by linear systems
· Used a message passing interface in C to parallelize a Monte Carlo method to calculate solution vectors