

EDUCATION

The Johns Hopkins University, Whiting School of Engineering
B.S. in Biomedical Engineering (Computational Biology Focus), Minor in Computer Science

Baltimore, MD
May 2015

PROFESSIONAL EXPERIENCE

Deloitte Consulting, LLP

Front-End Developer, Strategic Project Manager

Washington, D.C.
Aug. 2016—Present

Semantic Open Source Software (SEMOSS) Platform

- Execute and manage data analytics engagements leveraging SEMOSS, an open-source, web-based, end-to-end data analytics and visualization tool developed in-house at Deloitte and deployed at 14 federal and commercial organizations
- Manage two contracts totaling \$1M in cost by leading a team of 3 junior practitioners to deliver custom data analytics solutions to a health insurance client and a large federal agency, each project involved tens of thousands of data points
- Served as a strategic trusted advisor for client to perform economic analysis on over \$400 MM of federal systems in order to identify the optimal set of systems to sustain in order to achieve the organization's strategic priorities
- Designed, implemented, and tested over 50 new features and 5 visualizations as part of a small development team (10 persons) that were pushed to the production builds of the SEMOSS tool and its user base (over 150 daily)

Technology Integration Strategy for an International Social Enterprise

- Co-led a team of 5 practitioners in assessing the strategic value of technology in the operations of a social enterprise client
- Created a scalable technology acquisition plan for devices that would measure conversion and churn rates while also giving multiple other data points that could be used for customer segmentation analysis
- Performed ROI analysis on current technology portfolio, reducing unnecessary technology spend by 50% while also introducing new innovative technology as a differentiator and additional source of value to investors
- Provided exhaustive market analysis that evaluated the current market environment and comparable companies in order to establish opportunities for penetration and associated risks

Business Strategy Evaluation for an Analytics Start-Up

- Led a team of 2 junior practitioners to assess and improve the business model for a predictive machine learning startup by providing customer segmentation analysis, competitor analysis, and creating financial projections
- Recommended that the company pivot to a data analytics offering focused on helping governments create smart cities; company has transitioned and is currently piloting their new business model

Strategic Business Development

- Co-authored multiple proposals that resulted in Deloitte gaining 5 new clients in the federal and non-profit healthcare space with contracts totaling over \$1M in cost as part of a small business development team that focuses on capturing work related to translational medicine, medical devices, public-private partnerships, and overall healthcare strategy

Booz Allen Hamilton

Technology Consulting Analyst

Washington, D.C.
Jul. 2015—Aug. 2016

Improper Payments Estimation for a Federal Healthcare Agency

- Served as a System Architect, Developer, and DBA for an effort that estimates improper prescription drug payments by auditing a sample of prescription claims in the form of 9,000+ HIPAA protected documents
- Analyzed findings using Python to calculate payment error rates while also identifying potential sources of insurance fraud

Strategic Investment for a Private Hospital Client

- Extracted EMR data and designed machine learning algorithms (random forests, SVMs) in Python that leveraged various patient risk factors in order to calculate the probability of a patient being readmitted within 30 days of discharge
- Achieved a 70% success rate in retrospective studies where the tool would predict readmission rates

The Johns Hopkins University Center for Bioengineering Innovation & Design (CBID)

Design Team Member

Baltimore, MD
Jun. 2013—May 2015

SpiroSense, a Novel Spirometry System

- Part of a 5-person undergraduate team that created a novel diagnostic spirometer prototype that met clinical spirometer guidelines (2.84% error rate in measurements) and could be produced for less than \$25 USD
- Created a business plan and pitch deck that were shown at various pitch competitions and won \$50,000 in cash prizes

Tissue Analytics

Mobile Software Engineering Intern

Baltimore, MD
Jun. 2014—Jul. 2014

Android Prototype Development

- Designed and developed an Android app in a start-up environment that would take pictures of chronic wounds in patients and relay these images to remotely located doctors for analysis
- Communicated progress to the CEO, CTO, and CMO while also incorporating business needs into technical requirements

SKILLS

- Financial Analysis, Cross-Functional Expertise, UI and UX Improvements, MedTech, Stakeholder Analysis
- Java, JavaScript, HTML5, CSS3, AngularJS, SQL, Python, AWS, VB.NET, C/C++, Hadoop/HDFS, Spark, Linux