

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

Product Designer, Software Engineer, Technology Consultant

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
- Deployed the first iteration of user tracking in SEMOSS using Google Analytics which allowed for multiple product metrics to be tracked including Actions Per Month, Churn Rate, and Active User Percentage that influenced feature discussions
- 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
- 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 350 daily)
- Instituted agile DevOps practices including sprint planning, continuous integration (package management and code bundling), and test automation that dramatically increased the engineering team's feature velocity and feature quality

Technology Integration Strategy for an International Social Enterprise

- Co-led a team of 5 cross-functional practitioners in assessing the strategic value of technology for a social enterprise client
- Analyzed available customer data in Excel and created the enterprise's first customer segmentation model
- Drafted interactive mockups for the enterprise's mobile application using Balsamiq, Adobe Illustrator, and InVision that lead to a 35% improvement in consumer conversion rates (subscription-based model)
- Conducted 3 user interviews and converted these user experiences into a User Persona that was referenced throughout the transformation of both the enterprise's technology solutions and overall business model
- 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

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
- Performed market analysis on the data provider and insurance markets to identify current trends from an investment standpoint; synthesized findings into presentations and delivered our findings directly to the client
- Forecasted revenue growth and cash flow for the startup over the next 3 years by using DCF analysis
- Recommended that the company pivot to a data analytics offering focused on helping governments create smart cities

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

- Automated over 10 daily SQL data pulls from a database of over 9,000 financial healthcare transactions in order to identify trends and statistics across data while providing ad-hoc data queries to non-technical teammates
- 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

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

SKILLS

- Product Design and Roadmapping, UI/UX, Cross-Functional Collaboration, User Research, Mockups, Data Visualization
- Java, JavaScript, HTML5, CSS3, React/Redux, AngularJS, SQL, Python, AWS, C/C++, R, Hadoop/HDFS, Spark, Linux