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Douglas Silverman

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Education

University of Massachusetts, Amherst   Graduation: 2021
Major: B.S. Computer Science | Secondary Major: Mathematics

Work Experience

Software Engineer II   Raytheon | *Woburn, MA*   2023-Present
Product Owner of the *Data n Dashboards* team which had a rotating group of 3-8 engineers | 8 months
- Utilized Git, Gitlab, Agile Development Principles, Power Platform, Relational Databases, System Design
- Single-handedly create complete system design for a full stack web app with 4000+ users and a short time schedule
- Frontend consisted of many GUIs, user forms, metric displays and calculations - paid careful consideration to UX/UI
- Handled backend of 200,000+ row tables, including instantaneous and daily updates
- Presented system design, working app, and deployment of web app to Software Leadership including VP of SW
- Start to finished product in ~6 months while having engineers pulled to program and getting new ones to train

Scrum Master and Process Engineer on AN/TPY-2 Program | 1 year
- Utilized Git, Bitbucket, Agile Development Principles, Jira, Power Platform, Relational Databases, System Design
- Programmed in Power BI, Power Query, DAX, Python, SQL, XML, Java, Jenkins
- Created 5+ Dashboard through Power BI for Leadership and Government Customer reporting
- Financial Dashboards: status, planing, forecast, capability performance, contract requirements
- Staffing Dashboard: Monthly staffing plan from 11+ managers and 200+ staff with table joining of all managers inputs
- Experience with relational databases including: design, querying, aggregation, performance, size & time constraints
- Agile Development: Sprint Planning, Standups, Reviews, Retrospectives, Backlog Refinement, Story Pointing, Avoiding scope creep, handling varying priorities.

Implementation Consultant   Fast Enterprises | *Centennial, CO*   2021-2022
- Full Stack Developer working for the State of Michigan Unemployment Insurance Agency as a consultant
- Learned a proprietary system and large codebase in a month to work on production code
- Worked extensively on the backend upgrading and adding entries in reference tables from legacy system
- Converted Visual Basic code components to C# as well as wrote new pieces of C# code for custom functionality
- Single-handedly tailored the Frontend website to match the requests of the client (custom theme, header, footer, and color palette)

Web Development Intern   Coach & Crew | *Los Angeles, CA*   2019 – 2020
- Learned Angular.js and Bootstrap in a week - recreated Google login page and created mock homepage for C&C
- Assisted in the development of a noSQL database using Google Firebase with a group of 8 others

Skills

- Programming: Power Query (M), DAX, Java, Python, C#, SQL, AWS CDK, JavaScript, C
- Software: Power BI, Power App, Power Automate, Visual Studio Code, Microsoft SQL Server Management Studio (SSMS), git, GitHub, Eclipse
- Machine Learning: scikit-learn, numpy, pandas, matplotlib
- Web Development: Vue.js, Angular.js, Node.js, MongoDB, Google Firebase

Projects

Sentiment Analysis on COVID-19 Tweets | *Python, scikit-learn, numpy, git, github*   November 2020
- Retrieved a pre-labeled Dataset of ~40,000 coronavirus tweets between March and April of 2020
- Cleaned dataset by iterating a numpy array of tweets and removing invalid characters like emojis
- Converted each tweet into a vector of terms (words) using a TF-IDF vectorizer
- Trained Naive Bayes, Logistic Regression, Random Forests, and VADER from scikit-learn using the TF-IDF vectors
- Evaluated each classifiers performance on cleaned test dataset - VADER and Logistic Regression performed best

Analysis of Sports betting Strategies | *Python, pandas*   March 2020
- Simulated amateur betting strategies by created models and testing them on 3 seasons of play across 3 sports
- Models: Martingale and Oscar's Grind which reduce losses - Kelly Criterion that maximizes profit 2 Poisson Distribution models that predict winners of every game
- The datasets were cleaned to normalize team names (some teams change cities) and to remove invalid entries
- Plotted the profit over time for each strategy using matplotlib and results analyzed in final report

Leadership Experience

Captain of UMass Ultimate Frisbee Development team   September 2019 - May 2020
- Managed logistics of practice, taught key strategies, developed young and new players