Daniel Will George
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Professional Experience

- **Microsoft Research** *Software Engineer, August 2022 - present*
  - Developed backend services for innovative products to enable Microsoft's customers to use Artificial Intelligence to discover useful information (technologies used: C#)
  - Maintained software services by identifying concurrency problems in runtime computational graph API
  - Streamlined connector service API by accommodating unordered data structures and external files
  - Developed a more robust authentication flow, using cache to store and retrieve authentication access tokens
- **Reddit** *Sr. Software Engineer, Machine Learning, July 2021 - June 2022*
  - Led investigation and development to improve response time for microservices by tuning parameters and implementing server connections pool for green threads
  - Developed web-based application (technologies used: Python, React) offering first-ever interactive API documentation for core machine learning services
  - Directed transition of Core Machine Learning team to new in-house development platform (technologies used: Docker, Kubernetes)
- **Disney**
  - *Sr. Software Engineer (July 2019 - July 2021)*
    - Lead backend engineer for executive financial analytics solution aggregating and rendering data from many businesses across the whole enterprise (technologies used: Python, GraphQL)
    - Hired (with teammates) two software engineers and senior manager of team
    - Led an international team of Disney data scientists, research experts and engineers to meet the White House call-to-action on COVID-19 scientific research by using natural language processing, machine learning, and data mining techniques to answer questions pertaining to the novel Coronavirus
    - Built and managed the team from scratch, winning formal approval and team resources from Disney Technology senior executives
    - Managed entire project end-to-end, directing technical strategy and vision, including publishing team research and finished product, which may be found here: `https://www.kaggle.com/danielwillgeorge/cobert-an-approach-for-question-answering`
    - Managed a diverse team of engineers, including one NLP scientist from Disney Research who left the team to pursue a PhD and one junior engineer who became promoted to a Software Engineer at Disney, in part because of our work on a question-answering model to help understand COVID-19
    - Backend engineer working on Big Data systems (technologies used: Java, Spark)
  - *Software Engineer (June 2017 - July 2019)*
    - Backend engineer maintaining and developing Disney+ recommendation system (technologies used: Java)
    - Drove project to implement embedded database within build pipeline from scratch; increased test coverage from zero to more than 50% across microservices in Disney+ recommendation system (technologies used: Java, Spring)
    - Managed project to bolster sustainment for DisneyLife service, coordinating a team of four engineers (technologies used: Python, Django)
    - Coordinated multiple teams to automate translations of text (technologies used: Python, Django)
  - *Software Developer (July 2015 - September 2016)*
    - Analyzed changes in YouTube suggested rankings over time to gain insights into user and algorithm behavior; developed internal app to retrieve and research data
    - Presented findings to senior leadership and helped change company policy; grew viewership by 14%

  - Led first-ever project within Maker Studios to use NLP to understand social sentiment for marketing partnerships; tokenized strings and generate custom visualizations of frequencies for sentiment analyses and marketing partnerships
  - Developed a service to drive growth for YouTube creators by optimizing channel metadata and making recommendations for new creative content Rank-frequency distribution of data revealed an exponential relationship between a creator's fans and the YouTube content most watched by those fans
  - Provided ad hoc reporting, defined key business metrics for reporting across the organization, and documented business processes
  - Built software tool to retrieve customized data from Google APIs for analyses, which helped standardize reporting and reduced time required by more than 90%

- **Zefr** *Software Engineer, August 2014 - July 2015*
  - Developed and maintained an application to ensure correct monthly revenue attribution and reporting (technologies used: Python)
  - Mentored two junior programmers in Python, MySQL, and PostgreSQL

Talks

- COBERT: An Approach for Question Answering. Google: COVID-19 Open Research Dataset Challenge (CORD-19), 2020. `https://www.kaggle.com/danielwillgeorge/cobert-an-approach-for-question-answering`
- Understanding the Whole Computer with B-Trees as Database Indexes. Disney Streaming Services: The Art of Possible (2020).
  `https://medium.com/disney-streaming/understanding-the-whole-computer-with-b-trees-as-database-indexes`
- Testing PostgreSQL Applications From Scratch (Almost). Disney Streaming Services: The Art of Possible (2019).
  `https://medium.com/disney-streaming/testing-postgresql-applications-from-scratch-almost`

Education

- **Stanford University (School of Engineering)** *January 2020 - June 2024*
  - M.S., Computer Science (3.75 GPA)
- **University of Washington (Michael G. Foster School of Business)** *January 2011 - June 2011*
  - Graduate Certificate (mini-MBA), Business Administration (3.8 GPA)
- **Illinois Wesleyan University (College of Liberal Arts)** *August 2005 - January 2011*
  - B.A., Music (3.5 GPA)
  - Alpha Lambda Delta, Phi Eta Sigma Academic Honors
  - University Distinguished Award for Intellectual Leadership

Relevant Coursework

- **CS 265: Randomized Algorithms and Probabilistic Analysis (Stanford University)**
- **CS 107: Computer Organization & Systems (Stanford University)**
- **CS 103: Mathematical Foundations of Computing (Stanford University)**
  - Instructor-endorsed student answerer
  - Top 10% contributor
- **CS 110: Principles of Computer Systems (Stanford University)**
  - Instructor-endorsed student answerer
- **CS 161: Design and Analysis of Algorithms (Stanford University)**
  - Top 1% Contributor recognized by professor

  - Endorsed for answers in algorithm analysis and proofwriting

Certifications/Courses

- **Google** *June 2018*
  - Machine Learning with Tensorflow APIs

Skills/Technologies

- **Server-Side/Scripting:** Python, Java, C/C++
- **Client-Side:** Javascript, React
- **Data Manipulation/Management:** pandas, numpy, MapReduce, Spark
- **Data Modeling/Machine Learning:** scikit-learn, nltk, TensorFlow, PyTorch
- **Databases:** MySQL, PostgreSQL
- **Cloud Services:** Google Cloud (GCS), Amazon Web Services (AWS), Azure
- **Containerization/Deployment:** Docker, Jenkins
- **Messaging:** Google Taskqueue, Pubsub
- **Visualization/BI:** DOMO, Tableau, matplotlib
- **Methodologies:** Agile, object-oriented programming
- **Miscellaneous:** Git, Spring, Maven, Django, GraphQL