WILLIAM C. BURGIS

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EDUCATION

University of Notre Dame, Notre Dame, IN **May 2023**
B.S., College of Engineering; Dean's List Honors (6 semesters, Fall 2019 – Spring 2022) **Cumulative GPA:** 4.00/4.00
Major: Computer Science   **Minor:** Engineering Corporate Practice
Maine South High School, Park Ridge, IL **May 2019**
Valedictorian (ranked #1 in class of 650 students); National Merit Scholarship Recipient; ACT: 35 **Cumulative GPA:** 4.96/4.00

PROFESSIONAL EXPERIENCE

Booz Allen Hamilton, *Enterprise Software Development Intern*, Annapolis Junction, MD **June 2022 - Present**
- Building a full-stack web application and developing machine learning models to detect malicious activity on social media
- Employing data generation and semi-supervised learning techniques to create Tensorflow models and neural networks
- Utilizing skills in Python, Data Science, GitHub, SQL, Natural Language Processing (NLP), Linux, and JavaScript

Center for Network and Data Science, *Co-Author and Research Assistant*, Notre Dame, IN **January 2021 - Present**
- Co-Author of "Deep Ensembles for Graphs with Higher-order Dependencies" (link attached here)
- Conducted research on Graph Neural Networks (GNNs) and the roles that higher-order dependencies play within them
- Contributing to the creation of GrowHON and HONGNN models and determined their effectiveness on various data sets

University of Notre Dame, *Data Structures Teaching Assistant*, Notre Dame, IN **August - November 2021**
- Hosted weekly office hours to aid students with any questions they have regarding the Data Structures course material
- Attended course lectures and labs to give feedback and further students' comprehension of the material as they learn it

ShareBuilder 401k, *Software Engineering Intern*, Seattle, WA (remote) **June - August 2021**
- Collaborated with the Engineering Team to integrate the Solo-K Saver plan into the Sales Funnel, interfacing it with several APIs
- Implemented skills in HTML, CSS, and JavaScript to improve the Small-Business and Enterprise Marketing Sites
- Utilized NodeJS, Puppeteer, Docker, Terraform, and Amazon Web Services to create an automated test that ensures the Sales Funnel quote and purchase processes are running smoothly every day

AWS Data Structures Preternship Project, *Software Engineer,* Notre Dame, IN **March - May 2021**
- Developed, implemented, and tested a program to scrape recent and popular Tweets about a selected company using the Twitter API, interfaced it with AWS Comprehend, and created an algorithm to determine that company's overall trending sentiment
- Identified critical dependencies and design considerations and delivered weekly code reviews and professional memorandums

LEADERSHIP, PROJECTS, & ACTIVITIES

Center for Network and Data Science: iTREDS Program, *iTREDS Scholar*, Notre Dame, IN **March 2021 - Present**
- Restructuring the Political Data Yearbook (PDYi) database to comply with FAIR standards and embrace linked, open data
- Intertwining ethics and social responsibility with delivering data-driven, impactful solutions to real-world problems

University of Notre Dame Data Science Dept., *Co-Author and Researcher*, South Bend, IN **August - December 2021**
- Co-Author of "Predicting U.S. County Vaccination Rates with Classifiers" (PDF here); voted best project out of 18 submissions
- Employed Random Forest, Neural Network, Naïve Bayes, CART, Decision Tree, SVM, and KNN classification methods with 5-fold cross-validation to predict vaccination rates of counties across the U.S.; determined Random Forest to be the most optimal

Camp Kesem Notre Dame, *Counselor*, South Bend, IN **September 2019 - Present**
- Raised money to provide cost-free camp to children whose parents have been impacted by cancer
- Served as a counselor during the camp over the past two summers (took place online due to COVID-19 pandemic)

Student International Business Council, Notre Dame, IN **September 2019 - November 2020**
Goldman Sachs Corporate Strategic Advisory Project – *Travel Team Analyst* **September - November 2020**
- Created a C program to project 5 years of revenues for Dick's Sporting Goods (NYSE: DKS) using linear regression of a series of analyst reports; ultimately valued Dick's at an implied share price of $54.76 and an enterprise value of $5.63B
- Conducted M&A, LBO, and equity analyses; proposed that Dick's should acquire two private companies, Custom Ink ($872M) and Hudl ($415M), to expand their online presence, customization segment, and involvement with youth sports
- Worked as a travel team analyst for the Deloitte Consulting (Spring 2020) and GTCR Leveraged Buyout (Fall 2019) projects

SKILLS AND INTERESTS

Technical Skills: Python, C, C++, GitHub/Gitlab, Data Science, Bash, Machine Learning, HTML/CSS, JavaScript, Microsoft Office
Relevant Courses: Operating Systems, Systems Programming, Data Structures, Data Science, Theory of Computing, Probability
Interests: Software Development | Premier League Soccer | Nonfiction | Waterskiing | Fishing | Fitness | Cooking | Fantasy Football