DANE WILLIAMS

dwilli36@nd.edu | danewilliams.me | 425 988 4749
linkedin.com/in/danerwilliams | github.com/danerwilliams

Education

University of Notre Dame — Notre Dame, IN
***B.S. Computer Science**, College of Engineering* — *Aug. 2018 - May 2022*

- Cumulative GPA: 3.70/4.0, Major GPA: 3.86/4.0
- Relevant Coursework (Completed): Data Structures & Algorithms, Systems Programming, Discrete Math, Logic Design, Computer Architecture
- (Fall 2020): Compilers & Language Design, Theory of Computing, Programming Paradigms, Case Studies in Computing Entrepreneurship

Eastside Catholic School — Sammamish, WA
Salutatorian; GPA: 3.99/4.0 — *Aug. 2014 - May. 2018*

Experience

AT&T — San Ramon, CA
Technology Development Program Intern — *Jun 2020 - Aug 2020*

- Contributed to AT&T Labs research in detecting 5G network anamolies
  - Developed a python application for centralizing virtual network function data with an Apache Pulsar message bus (similar to Kafka)
  - Processed data with python and Apache Flink data stream computation engine (similar to Hadoop and Spark)
- Scrum master and full stack developer among a team of interns which built a MERN stack (Mongo, Express, React, Node) application for improving student engagement in online classroom environments

Symetra — Bellevue, WA
Cloud Intern — *May 2019 - Aug 2019*

- Gathered and visualized over 20,000 network infrastructure related data points by writing various python scripts which drove strategy leading to over $50k in monthly circuit savings
- Automated invoice processing with python, boto3 SDK, AWS Machine Learning: Textract (Optical Character Recognition) and Comprehend (Natural Language Processing), as well as other AWS services: SQS, SNS, and S3

Notre Dame Chaoli Wang Lab — Notre Dame, IN
Data Visualization Researcher — *Aug 2020 - Present*

- Incoming researcher under Dr. Chaoli Wang working with D3.js javascript data visualization libraries
- Designing and building visual analytical tools of Notre Dame student learning data with the goal of helping close academic performance gaps which result from disparities in student backgrounds

Notre Dame Venture Capital — Notre Dame, IN
Investment Associate — *Aug 2019 - May 2020*

- Selected to take part in a small group of Notre Dame students who invest university endowment funds in seed stage startups
- Worked with a team of 4 students + Notre Dame alumnus at Pivot North Capital in Menlo Park, CA to create investment proposals

Projects

- **Tmux Dracula Theme:** Open source maintainer and contributor for the official Dracula Theme, github.com/dracula/tmux
  - Developed a tmux (terminal multiplexor) extension from scratch in shell which was accepted to the official dracula theme: draculatheme.com/tmux
  - Used API's, webscraping, and Unix pipelines to gather network, power, weather, and date/time data to display in tmux status bar.
  - Commit code, merge pull requests, perform code reviews, and manage issues (bugs, feature requests, todos) for the project.
- **Pork Chop Chat Bot:** An AI chat bot written in python, github.com/danerwilliams/pork-chop
  - Developed a groupme chat bot in python that participates in conversation as well as responds to custom command modules.
  - Runs on a Flask server and can be trained for conversation from a custom csv dataset or other corpus files using the ChatterBot module.
- **Spidey Web Server:** A simple http web server written in C
  - Developed a simple http web server in C similar to Apache or Nginx, with both single and concurrency modes
  - Deployed server to an AWS EC2 virtual machine, available for demonstration at aws.danewilliams.me:9898

Activities & Awards

Notre Dame Men's Water Polo — Notre Dame, IN
Nationals Qualifier, Conference Champion, Elected Team Officer — *Aug 2018 - Present*

Washington Athletic Club 101 Scholar Athlete — Seattle, WA
Award Recipient — *May 2018*

Certifications

- **The University of Texas at Austin:** Think Before You Design Think
  - UT Austin coursework offered at AT&T on utilizing design thinking principles to develop customer centered engineering and business solutions

Skills

Languages: Python, C++, C, Shell, Verilog, Java, HTML/CSS, ARM Assembly

Technologies: Linux/Unix, AWS, Git