# David J. Liedtka III

# Naval Officer, Knight-Hennessy Scholar

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Experienced computer scientist interested in artificial intelligence, machine learning, and cyber security. Current member of the inaugural cohort of Knight-Hennessy Scholars at Stanford University. Officer in the U.S. Navy (will enter the Cryptologic Warfare Officer community after graduate studies) and 2018 graduate of the United States Naval Academy.

### **Education**

Stanford University

M.S., Computer Science (dual depth: Artificial Intelligence primary specialization, Computer and Network Security secondary specialization), expected June 2020

United States Naval Academy

B.S., Computer Science and Information Technology (dual major), May 2018

Academic Order of Merit: 1/1062 GPA: 4.0

Overall Order of Merit: 7/1062 Graduated with distinction

Military Order of Merit: 17/1062

## **Awards and Achievements**

Knight-Hennessy Scholar

Feb 2018 - Present

- One of 51 selected (out of 3,601 applicants) as a member of the inaugural cohort of Knight-Hennessy Scholars at Stanford University.
- Rhodes Scholarship Finalist, District 2

Nov 2017

Trident Scholar

Apr 2017 - May 2018

- One of 13 midshipmen selected for USNA's most prestigious independent research program.
  Advised by Professor Luke McDowell, completed a project titled *Prediction of Regional Voting Outcomes Using Heterogeneous Collective Regression*, which applied new machine learning strategies to make more reliable election predictions.
- Chief of Naval Operations Distinguished

May 2018

Midshipman Graduate

Admiral William S. Sims Memorial Award

May 2018

- For proficiency in computer science, as the graduate with the highest grades in classes required to complete the Computer Science major.
- Patriot League Academic Honor Roll

2015 - 2018

- Four time honoree on the Patriot League Academic Honor Roll. Competed as a letter-winning javelin thrower on the Naval Academy Varsity Men's Track and Field Team.
- Cryptologic Warfare Officer Service Selection

Nov 2017

- One of less than 20 midshipmen in the Class of 2018 competitively selected for the Cryptologic Warfare Officer community.
- Additionally at USNA, a 7x member of the Superintendent's List and Commandant's List (for academic, physical, and military excellence), Vice President of Phi Kappa Phi, and a member of Upsilon Pi Epsilon.

## **Work Experience and Leadership Positions**

Ensign, United States Navy

May 2018 - Present

- Worked in the Computer Science Department at the Naval Academy, contributing to several programming projects, following graduation. Awaiting first assignment in the Cryptologic Warfare Officer community to follow graduate school.
- Intern, National Security Agency

Summer 2016

- Worked in Tailored Access Operations. Assisted developing added functionality to an exploit framework used to facilitate initial access to a target.
- Intern, Maui High Performance Computing Center
  Summer 2017
  - Researched expanding Link-Based Classification, an existing Machine Learning strategy, to Heterogeneous Collective Regression, a new strategy enabling predictions over more diverse datasets.
- Company Commander, 22nd Company

May 2017 - Dec 2017

- Served in command of the Naval Academy's 22nd Company, a group of about 150 midshipmen.
  Was responsible for the organization, well-being, and efficiency of the company day-to-day.
- Teaching Assistant, MS&E 193/293: Technology and National Security: Past, Present, and Future

Sep 2019 - Dec 2019

- Volunteered about 20 hours per week as a teaching assistant for MS&E 193/293, a course taken by more than 200 students and taught by Prof. Herb Lin and (formerly) Ambassador Karl Eikenberry. Led two weekly discussion sessions with students amongst other collateral duties, such as grading.
- Finance Committee, Knight-Hennessy Scholars Apr 2019 Sep 2019
  - Member of a 6-person committee that managed a \$10,000 budget allotted for scholar-driven events.
- Cultural Immersion and Training Trip to Brazil
  June 2017
  - One of six midshipmen selected to travel to Rio de Janeiro, Natal, Alto Paraíso de Goiás, and Brasília in order to learn about the Brazilian culture and to interface with the Brazilian Navy and the Brazilian Naval Academy, Escola Naval.

#### **Publications**

- Fully Heterogeneous Collective Regression. David J. Liedtka and Luke K.
  McDowell. The 5th IEEE International Conference on Data Science and Advanced Analytics (IEEE DSAA 2018), October 2018.
  - This paper (and several published variants) as well as code and papers associated with my academic work at Stanford are available on my personal website, davidliedtka.com.

#### **Test Scores**

 ETS Computer Science Major Field Test – 181 (97th percentile), highest score amongst all computer science majors in USNA's Class of 2018

## **Computer Languages**

- I have experience programming in the following programming languages, amongst others:
  - Python
- JavaScript

Java

PHP

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SQL

C++

MATLAB