William H. Ernst

San Francisco, CA • will.ernst15@gmail.com

GitHub: https://github.com/wernst • **Personal website:** https://wernst.github.io • **Kaggle:** https://www.kaggle.com/wernst

---

EDUCATION

MIDDLEBURY COLLEGE, 2013-2017 — Middlebury, VT

- **Bachelor of Arts,** Computer Science and Economics double major, Magna Cum Laude
- **Major GPA**: 3.97 (Economics); 3.92 (Computer Science, with Honors)
- **Overall GPA**: 3.75; College Scholar (highest academic honor) Fall 2014, Spring 2015, Fall 2015, Fall 2016; Dean's List Spring 2014;
- **Relevant Coursework**: Data Structures, Algorithms & Complexity, Computer Architecture, Computer Networks, Systems Security, Data Visualization, Theory of Computation, Artificial Intelligence; Calculus II, Linear Algebra, Statistical Learning, Regression Analysis, Applied Econometrics, Game Theory;
- **Athletics**: Captain of Middlebury Lacrosse team (2017), 3x NESCAC All-Academic Selection, 25 hours/week
- **Activities**: Computer Science Department Grader, Student Investment Club, CS Club ("Middle Endian")
- **Programming:** Python, Java, C, JavaScript (Node.js, AngularJS, D3); R, STATA, Excel; Experience in Linux

STANFORD UNIVERSITY, Summer 2015 — Stanford, CA

- Coursework: Client-side Internet Technologies, Introduction to Computer Graphics and Imaging

SELECTED PROJECTS

- Programmed an AI agent that learns how to play the game 'Othello' through reinforcement learning using the TD-Lambda algorithm and a neural network in Python
- Developing MOHO (www.middoffcampus.com), a website for local rental housing listings in Middlebury using the MEAN Stack – MongoDB, Express, AngularJS, and Node.js
- Built a handwritten digit recognizer using a multilayer neural network with sigmoid neurons
- Implemented a network protocol parser and builder in C, capable of sending and receiving live ARP, ICMP, IP, UDP, and DNS packets
- Designed a stock portfolio visualization using live stock data from Yahoo! Finance with D3

EXPERIENCE

MOHO LLC (www.middoffcampus.com), January 2017-Present — Middlebury, VT
Co-Founder, Lead Developer

- Developed the server, database, and front-end for the website using the MEAN Stack
- Set up the website's payment system with the Stripe API
- Participated in the design of the service's business model
- Conducted market research in order to best tailor the service to our customers

SECURITY FIRST CORP, June 2016-Present — Rancho Santa Margarita, CA
Software Intern

- Designed and built the testing platform for automated UI testing used for the Policy Management Engine with Python and the page-objects design model
- Wrote over 75 automated UI testing scripts using the Selenium API in Python
- Participated in daily scrums and management discussions on test coverage

MIDDCORE, June 2014 — Lake Tahoe, CA

- Collaborated with other participants and executives from 50 Eggs Films and the Tahoe Food Hub to solve challenges their businesses were facing; Raised $2,500 for one of the companies
- Identified and developed a new business venture and associated financial model in MiddCORE's Innovation Challenge
- Completed 160+ hours of mentor-driven workshops designed to develop entrepreneurial, leadership, collaboration, strategic thinking, persuasive communication, and financial literacy skills

PERSONAL

- **Interests:** Surfing, Skiing, Hiking, Biking, Guitar
- **University High School, S.F.**: Athlete of the Year, Lacrosse Captain, High School All-American, Student Council.