

BRENDAN RITTER

brendan.ritter@gmail.com | www.brendanritter.com | 703-517-5937 | 6 Dickinson St, Cambridge, MA | github.com/code-11

Experience

Raytheon BBN – Scientist (Operations Researcher)

Jun 2016 – Jul 2021

Developed user-centered logistics programs for USTRANSCOM and OSD CAPE (pentagon). Responsibilities included:

- *Formalized Search and Scheduling problems* – Created domain APIs from Subject Matter Expert input and hundreds of pages of Air force doctrine, allowing for the tuning of over a thousand constraints.
- *Development of Logistics Engines* – Used domain APIs and created search algorithms to find solutions in unbounded search spaces. These applications reduced analyst time from months to hours.
- *User Research* – Conducted dozens of user interviews allowing for tools to reflect the individual workflows of over six organizations.
- *Profiling and Software Optimization* – Optimized many applications, analyzing and fixing algorithm structure, adding caching and multi threading, sometimes reducing run time by as much as 90%.
- *On-site Technical Assistance* – Oversaw use of tools in studies, responding quickly to client concerns, contributed to formal accreditation and turned around as many as fourteen releases in two weeks.
- *Business Development and Proposal Writing* – Discussed opportunities with clients in person. Contributed to a number of proposals and personally wrote several white papers. Contributed to securing five contracts.
- *Hiring* – Attended dozens of career fairs, conducted technical and personality screens, formulated and ran in-depth technical interviews, reviewed hundreds of candidates and tripled team size.

AthenaHealth – Software Development Intern

Jun 2015 – Sep 2015

Developed framework and tools for code quality analysis using Perl and JavaScript. Allowed for review of entire multi thousand file code base in minutes.

Microsoft – Software Development Intern

Jun 2014 – Sep 2014

Personally developed an experimental web-based Skype client using javascript, C# and Azure cloud service.

[\(See website for description of projects and older internships\)](#)

Education

Cornell University – Masters of Engineering in Computer Science

Sep 2015 – Jun 2016

Data Science, Machine Learning, Computer vision, Product design, Tech strategy

Olin College – Bachelor of Science in Engineering (Computer Science)

Sep 2011 – Jun 2015

Modeling and Simulation, Artificial Intelligence, User Design, Micro and Macro economics (Wellesley)

Skills

Front and Backend Development, Computational Modeling, User Oriented Design, User Research, Product Design
Java – Spring, Spring Boot; *Python* – Pandas, numpy, matplotlib; *Javascript* – React, Redux, Konva, Nodejs

Publications and Patents

Effects of color and threshold on user perception of heat maps

Jun 2017

Proceedings of the 2017 ACM Conference on Designing Interactive Systems

Developed underlying software program, co-authored and codesigned experiment and research.

US Patent: Video Wall System & Method of Making and Using Same, US20160328202A1

Jan 2015

Issued 12/25/2018. Personally conceptualized, wrote, submitted patent for unified simultaneous visual presentation of multi-screen data input.

A Collaboration Based Community to Track Idea Diffusion Amongst Novice Programmers

Sep 2012

7th European Conference for Technology Enhanced Learning (ECTEL)

Developed underlying software program, co-authored and presented in group of four.