# **Titania Emmons**

Software Engineer with Experience in Mathematics and Education

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# **Projects**



### Pokemon Showdown Interface: Before and After - Github

- Paid to remodel interface with the imposition of no DOM modification
- Used pseudo-elements and inventive hacks to re-arrange/replace components for drastic manipulation
- Created art assets and interactive control element animations for improved user experience

#### Browser Othello AI: Live - Github

- Java-implemented neural nets trained via genetic algorithms for state valuation
- Front-end Javascript implementation uses the trained coefficients
- Bitboard computation for extremely fast, low-resource processing

#### **Skills**



Java, Python, CSS, Javascript, React, C++, C#, Machine Learning, Discrete Math, Game Theory <u>Triplebyte Certified</u> Generalist Software Engineer

## **Employment History**



#### Cafe Lalo Bartender: 2018 - 2019

- Trained front of house staff members and organized team through busy services
- Handled customer purchases, register accounting, and some business banking transactions

#### Fairfax County Public High School Teacher/Substitute: 2015 - 2017

- Taught math courses from Algebra 1 through Differential Equations, AP Physics, and AP Biology
- Collaborated to develop curriculum and constructed lesson plans for my own sections
- Replaced Thomas Jefferson High School precalculus teacher in January 2016 for remaining years

#### Professional Bridge Player: 2009 - 2014

- National title winner
- Paid by US Bridge Federation to represent them internationally in tournament

#### BBN Technologies and Office of Naval Research Intern: 2007 - 2010

- Contributed code for distributed network, high-precision time delay estimators
- Designed and coded an unmanned autonomous reconnaissance plane ground-control system

### **Education**



**Caltech**: September 2009 - June 2014 with coursework in AI, information theory, differential equations, decidability and tractability, statistics, number theory, abstract algebra, signal processing, physics

Thomas Jefferson High School for Science and Technology: September 2005 - June 2009