

# Titania Emmons

Software Engineer with Experience in Mathematics and Education

2025 McGee Avenue #G, Berkeley, CA 94703

titania@emmons.mobi

## 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  
[Triplebyte Certified](#) 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