

Eugenio Macias

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EDUCATION

- Brown University**, *B.S. Applied Mathematics–Computer Science, B.S. Statistics* **Providence, RI | Class of 2026**
- Recipient of full scholarship, **GPA: 4.0**
 - **Relevant Coursework:** Data Structures, Design of Algorithms, Linear Algebra, Statistics I-II, Differential Equations I-II, Computer Systems, Abstract Algebra, Econometrics I & II, Complex and Real Analysis, AI, Macroeconomics II, Topology
 - **Clubs:** Quant Trading at Brown, LATAM Society, SHPE, Brown Chess Club
- United World College (UWC)**, *International Baccalaureate* **Bosnia & Herzegovina | Class of 2022**
- Shelby Davis Scholar: Awarded **\$40,000/year scholarship**

EXPERIENCE

- Scale AI**, *Incoming Software Engineer* **Remote | 09/2024-12/2024**
- Evaluate AI-generated code, develop robust test-cases, and develop new platforms for AI functionalities
- D. E. Shaw & Co.**, *Fellowship* **New York City, NY | 04/2024-05/2024**
- Engaged in in-depth discussions on quantitative trading exploring statistical and machine learning techniques
 - Explored innovative projects in software development for financial applications, emphasizing high-frequency trading systems
- Bridgewater Associates**, *Investment Immersion Program* **Westport, CT | 02/2024-03/2024**
- Participated in markets sessions, and case-studies led by senior investment associates, engineers, and quantitative researchers
 - Learned about *alpha* and *beta* engines, as well as ML algorithms for financial modelling and automatized investments
- Point 72 & Correlation One**, *Data Scholar* **New York City, NY | 04/2024**
- Participated in data-science case studies using **Pandas**, **Matplotlib** to model future revenue of different airlines
 - Intensive training program focused on leveraging data science, alternative data sources, and AI/ML within hedgefund industry
- Buddywise**, *Founder's Associate Intern* **Berlin, Germany | 05/2023 – 07/2023**
- Oversaw researching and implementing datasets into the data pipeline for the **ML**, Computer Vision and **AI** algorithmss
 - Secured a \$50,000 Mixpanel credits award to conduct comprehensive analysis of Buddywise UI metrics and KPI's

PROJECTS

- Research:** *Fourier Analysis and Laplace's Equation*
- Authored a 50-page research paper in Real Analysis and Linear Algebra: complex-real function theory, convergence criteria
 - Explored the importance of Fourier Series to Laplace's 2-D Equation solution space with 4 Boundary Dirichlet conditions
- Time-Series Forecasting** (Python, *ongoing*)
- Implemented a *time series* predictor algorithm in Python utilizing *Bollinger-bands* and *Monte-Carlo* Simulations.
 - Utilized changepoint detection, multiple linear regressions, *ARIMA* models, and *Matplotlib-Seaborn* for visualizations
 - Employed the Etrade *API* for real-time data and parsed index pricing and variance statistics using *XML Etree* Libraries
- Personal Portfolio** (*HTML, CSS, JavaScript, GitHub Pages*)
- Designed and developed a personal portfolio website using HTML, CSS for styling, and JavaScript for special effects.
 - Hosted the website on GitHub Pages for continuous deployment and accessibility to different devises
- Graph-Optimizer Algorithm** (*Python*)
- Created a graph algorithm that optimizes edge-paths based on cost, distance, time- efficiency, and customizable parameters
 - Employed graph structure algorithms like Dijkstra, BFS, and DFS. Tested with graphs with 500+ vertices and edges
- Game-AI** (*ReasonML*)
- Implemented a Connect-4-game calculator and module for MxN-board dimensions using matrix representations
 - Assigned numerical values to a *Mini-Max* Algorithm allowing the AI to outperform 100% of human moves

AWARDS

- **PUTNAM 2023:** Represented Brown in leading mathematics competition (**top 20% scorer**)
- **IYMC:** Obtained the **Silver Medal** in the mathematics open category (18+) (2022)
- **STEM Olympiad 2022:** **1st place** in the Math-Geo-Tech National Exam (BiH) ,
- **STEM Olympiad 2022:** **13th place** in the Global Ranking (4000+ students)
- **Brown Financial Services 2023:** Exploration award to learn from (VC, IB, PE) financial analysts working in NYC
- **GFA:** Secured **2nd & 3rd place** in the National Classical Guitar Competition in Mexico. GFA in USA.
- **AMP:** Brown Applied Music Program for advanced-level classical musicians. 3 final solo-recitals (**audience 150+**)

SKILLS & INTERESTS

Skills: Proficient in Excel, PowerPoint, Word. **Spanish** (native), **English** (native), **German & French** (B1 proficient).

Programming Tools: Python, Java, C, C++, R, LaTeX, STATA, ReasonML, DrRacket, Docker, GitHub

Specializations: Python Data Science (*IBM*), Capital-Options (*Akuna Capital*)

Interests: Chess (1940 ELO), Classical Guitar, Travelling the World (trying all food).