

# Oscar Depp

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## EDUCATION

### Northwestern University

*Bachelor of Science in Applied Mathematics*

*Master of Science in Electrical Engineering*

**Evanston, IL**

*Expected June 2025*

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- GPA: 3.97/4.00; Dean's List All Quarters
- Northwestern Capital Management, AeroNU, Experimental Space Technology, Club Tennis (A Team), Japan Club VP
- Relevant Coursework: Numerical Modeling & Computation, Partial Differential Equations, Microeconomics, Complex Analysis, Probability, Linear Algebra, Data Structures & Algorithms, Thermodynamics, Machine Dynamics

### Deerfield Academy

*High School*

**Deerfield, MA**

*2017-2021*

- Investment & Security Analysis Club President, Varsity Tennis, International Student Alliance Chair, Peer Tutor Group Head, Political Magazine Editor-in-Chief

### King's Academy

**Madaba, Jordan**

- Initiated and self-organized a study abroad program for cultural awareness and language fluency; 4.0 GPA

## EXPERIENCE

### Northwestern Capital Management

*Quantitative Strategy Analyst*

**Evanston, IL**

*March 2023-*

- Developed paper trading algorithms using ML packages and statistics to maximize portfolio return; cleaned datasets, tested for mean reversion, and performed data scraping and sentiment analysis

### Buffett Institute of Global Affairs

*Undergraduate Researcher*

**Evanston, IL**

*September 2022-January 2023*

- Analyzed gender patterns in Arabic textbooks and graphics using Mathematica ML tools to improve DEI in classrooms
- Studied global gender inequality trends in STEM through qualitative datasets in the Middle East

### Y-SAPIX Global Campus and Triple Alpha

*Summer Intern*

**Tokyo, Japan**

*June-August 2021*

- Created a promotional video using Adobe Premiere Pro and machine translation tools to translate videos and interviews of global leaders in Japan to market a Boarding School Fair website column

### Yokohama Athletic & Country Club

*Tennis Coach*

**Yokohama, Japan**

*June-August 2021*

- Organized personalized coaching sessions for junior professionals, improving client base fivefold in ten weeks

## PROJECTS

### Funded Undergraduate Research

*May-August 2023*

- Awarded a \$4500 grant for a self-directed proposal modeling and simulating coupled stochastic differential equations computationally, contributing to understanding of bio-membrane dynamics and the evolution of interest rates

### Autonomous Drone Project | Robotics Club

*November 2022-*

- Trained a computer vision machine learning model to identify boxes, wrote a Python program to adjust positions autonomously using PID loops, and designed 3-D printed drone's electronics frame

### CubeSat Design | Experimental Space Technology

*March-September 2022*

- Developed a novel Additive-Manufactured satellite design to minimize its part count and force impact in atmosphere
- Researched 3D-cellular structures, selected materials computationally, & optimized topology through Python simulation

### Helix Slap-Down Container Opener | DTC I

*September-December 2021*

- Designed a human-centric, intuitive product in collaboration with the Shirley Ryan Ability Lab to enhance the day-to-day independence of a client with mobility disabilities through user testing, computer aided design, and prototyping

## SKILLS & INTERESTS

**Awards:** J.S. & Helen James Scholar, McCormick Summer Research Award 2023, Segal Institute Design Award 2021, Advanced Arabic Excellency Award 2022, Speech (Poetry Declamation) Award 2021

**Programming:** Numerical Modeling, PyTorch, TensorFlow, C++/C, Python, SQL, Git, MATLAB, Java, CAD, Mathematica

**Languages:** Fluent in English, Japanese, Chinese, Arabic

**Interests:** Tournament Tennis, Concert Piano, Languages, Running, Travel, Writing Poetry & Film, Sauna, Beekeeping