Oscar Depp

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EDUCATION

Northwestern University **Evanston, IL**
Bachelor of Science in Applied Mathematics *Expected June 2025*
Master of Science in Computer Science *Expected June 2025*

- 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 **Deerfield, MA**
High School *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 **Evanston, IL**
Quantitative Strategy Analyst *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 **Evanston, IL**
Undergraduate Researcher *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 **Tokyo, Japan**
Summer Intern *June-August 2021*

- Created a promotional video using with 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 **Yokohama, Japan**
Tennis Coach *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 program to adjust positions autonomously using PID loops in Python, and designed and 3-D printed drone's electronics frame

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

CubeSat Design | *Experimental Space Technology* *March-September 2022*

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

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