# Luke Andreesen

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# **EDUCATION**

# The University of Chicago

Chicago, IL

Bachelor of Science in Computer Science, *Specialization in Machine Learning* Bachelor of Arts in Economics, *Specialization in Business Economics* 

Expected Graduation: June 2025

# PROFESSIONAL EXPERIENCE

Error Corp.

College Park, Maryland

Quantum Software Engineering Intern

June 2024-Present

- Developed gradient ascent-based quantum optimal control software for QuTiP via pulse amplitude optimization
- Conducted quantum state tomography on experimental results via IonQ devices for error correction experiments
- Explored practical use-cases of quantum machine learning using Qiskit, Pennylane, and QBraid platforms

#### **Invictus Growth Partners**

San Mateo, California (Remote)

Data Science Intern

August 2023-May 2024

- Developed and deployed custom web scraper on AWS Linux server to autonomously scrape and process entire websites for use in proprietary deal-sourcing machine learning model using Python and AWS S3/SQS
- Automated the injection of 30+ data sources into Salesforce reports for deal-sourcing and portfolio monitoring
- Tuned parameters and optimized proprietary deal-sourcing Neural Engine used to identify over 80% of the firm's \$300+ million in private equity investments

# **Duco Experts**

San Francisco, California (Remote)

Software Engineering Intern

May 2023-August 2023

- Implemented 20+ large-scale features on the company's web application using Ruby on Rails framework, including integrated Slack messaging, collaborative action item tracking, and filter-based platform searching
- Developed and implemented AI software to match clients with experts for their projects using OpenAI API

Security & Intelligence Intern

January 2023-May 2023

- Delivered 15+ detailed research papers and briefs on topics including cybersecurity, national security threats, payment fraud, executive protection, and workplace violence to Fortune 100 clients
- Identified, recruited, and vetted over 150 high-profile individuals to be added to Duco's expert network, including C-Suite executives, university professors, and former U.S. intelligence agents

QuMatrix

Fort Davis, Texas (Remote)

Quantum Computing Research Intern

June 2022-September 2022

- Completed comprehensive training programs on fundamental concepts and mathematics of quantum mechanics and computing, developed an understanding of foundational quantum algorithms
- Enhanced and updated proprietary quantum algorithms designed for applications including portfolio optimization and quantum education using IBM Qiskit software
- Developed distributed file and version control systems for cloud-based quantum simulation software using AWS

## **CAMPUS INVOLVEMENT**

Treasurer, *UChicago Quantum Society* | Bouldering Athlete, *UChicago Climbing Club* | Member, *UChicago Data Science Society* | Member, *Oeconomica* | Member, *UChicago Astronomical Society* | Member, *UChicago Figure Drawing Club* 

## **SKILLS, INTERESTS & PROJECTS**

Software & Application Development: Python, Java, C, C++, Ruby on Rails, Docker, HTML/CSS, JavaScript, Git

Data Science and Machine Learning: R, Excel, Pandas, SQL, Amazon SageMaker & Lightsail

Other: Quantum Computing Software (Qiskit, Qirq), AWS Cloud Services (EC2, Athena, S3), LaTeX

Interests: Rock Climbing, Aviation, Egyptian History, Quantum Technology, ESG Investing, Household Automation