

ALINA CAI

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EXPERIENCE

- Uber** | Software Engineer Intern Jun 2024 – Aug 2024
- San Francisco, CA - Incoming UberSTAR intern
- Microsoft** | Software Engineer Intern Jan 2024 – May 2024
- Optimized distributed systems for **Xbox** game builds, using **.NET** and **C#** to achieve a **40%** reduction for internal build times
 - Improved animation workflow timelines by **25%** with **C++**, automating asset transfers in an integration pipeline for **Unreal Engine**
 - Developed a custom plugin for **Epic Games**, integrating with **Autodesk Maya** to filter out zero-length animations during export
- Stealth** | Data Engineer Dec 2023 – Mar 2024
- Managed a **Natural Language Processing** database, accurately classifying over **66k** entries with a precision rate exceeding **95%**
- Google Developer Student Clubs University of Waterloo** | Director of Engineering & Operations Aug 2023 – Jan 2024
- Coordinated **software developer** and **data science** teams, orchestrating optimized resource allocation for over **300** members
- BluWave-ai** | Software Engineer Intern May 2023 – Sep 2023
- Devised an energy consumption predictor for California, deploying the project pipeline on a **Google Cloud VM** through **Docker**
 - Minimized mean average error by **52.3%**, employing **Prophet** and **LGBM** regressors to optimize **time series forecasting** accuracy
 - Leveraged big **data engineering** to automate the processing and storage into relational databases from the **California ISO API**

AWARDS

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| Euclid Mathematics Contest | Rank 94 of 22,372 contestants | Apr 2022 |
| Canadian Computing Contest | Rank 538 of 3,262 contestants | Feb 2022 |
| Canadian Music Competition | National Finalist, Rank 5 in Piano | Jun 2018 |

PROJECTS

- Citadel | Citadel Securities Women's Datathon** 📄 | *Python, Pandas, SciKit-Learn, Matplotlib* Feb 2024
- Conducted **statistical analysis** to uncover a strong correlation between crude oil prices and the Dow Jones Industrial Average
 - Employed **regression** techniques to demonstrate the minimal impact of supply factors on **market prices** and energy economics
- Citadel | Citadel Securities Summer Invitational Terminal** 📄 | *Python, Git, Bash* Aug 2023
- Formulated a custom algorithm within a live e-sports tournament, integrating concurrent simulation of proactive pathfinding
- Citadel | Citadel Securities Summer Invitational Datathon** 📄 | *Python, XGBoost, Google Colab* Jul 2023
- Constructed an air traffic model using **XGBoost** with **96%** accuracy, articulating key findings in a **quantitative research** report
 - Maximized model precision to **95.7%**, conducting **Exploratory Data Analysis** to discover **feature importance** in flight delays
 - Employed **over-sampling** with **scikit-learn** to solve class imbalance in regional weather, increasing model F1-score to **95.9%**
- Titanic Survival Predictor** 📄 | *Python, Pandas, NumPy, Matplotlib, SciKit-Learn* Jun 2023
- Performed **feature engineering** to build a **supervised machine learning** model predicting Titanic survival with **81.5%** accuracy
 - Executed the optimization of a RandomForest Classifier from **scikit-learn**, applying train-validation split to mitigate overfitting

SKILLS

Languages: Python, C, C++, C#, Bash, SQL, HTML, CSS, Java, JavaScript, LaTeX, Racket
Frameworks/Libraries: Pandas, NumPy, Matplotlib, SciKit-Learn, .NET, TensorFlow, Keras, Flask, Node.js
Tools: Azure, Google Cloud Platform, Visual Studio, Office, Git, Linux, Bash, Anaconda, Jupyter Notebook, Azure DevOps, Docker

LEADERSHIP

- Founder** | Alina's Music Studio Mar 2019 – Jun 2022
- Established a **start-up business** delivering professional piano and violin instruction, securing over **\$51k** in operating revenue
 - Facilitated excellence to over **80** students through tailored training, evidenced by prestige awards in competitions and exams
- President** | Lisgar Collegiate Institute Computing Club Sep 2018 – Jun 2022
- Organized and facilitated weekly technical and networking workshops, mentoring **Python** foundations to over **30** students
- Concertmaster** | Lisgar Collegiate Institute Symphony Orchestra Sep 2018 – Jun 2022
- Directed an ensemble of over **50** musicians, providing practical expertise on technical intricacies and expressive interpretation

EDUCATION

University of Waterloo Waterloo, ON
Bachelor of Computer Science, Honours Sep 2022 – Apr 2027
Coursework: Object-Oriented Programming, Probability, Algorithm Design and Data Abstraction
Clubs: Grand River Trading, Women in Computer Science, Computer Science Club, Data Science Club, Intramural Basketball
Interests: Piano, Basketball, Violin, Photography, Video Games, Cars, Trading, Poker