Claire Chen

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A highly motivated UIUC James Scholar enthusiastic in research engineering, application development, and all technical projects. I possess a strong problem-solving mindset, a genuine passion for innovation, and am eager to contribute to projects, share ideas, and actively engage in a supportive and dynamic work environment. Open to explore various positions and gain diverse experiences to help shape my future career path. A strong communicator who has a record of working effectively in teams.

Education

University of Illinois Urbana-Champaign

Mathematics & Computer Science, B.S.

Expected Graduation: May 2026

Champaign, IL

GPA: 4.0/4.0

Relevant Coursework: Programming with Python, Programming with Java, Programming with C++*, Discrete Structures*, Calculus III, Introduction to Matrix Theory, Fundamental Mathematics*, Applied Complex Variables*,

Planned Coursework: Data Structures, Computer Architecture, Systems Programming

*currently taking course

Experience

Computer Vision Research Engineer

UC Santa Barbara Vision Research Lab

- ☐ Jun 2022 Apr 2023
- 4162 Harold Frank Hall
- Worked with graduates to conduct biomedical image analysis of distinguishing viral pneumonia COVID-19 from other forms of viral pneumonia through deep learning image classification.
- Produced novel AI method in automated COVIDpneumonia diagnosis that achieved 21.37% improved accuracy to state-of-the-art.
- · Presented in bi-weekly meetings, wrote complete research paper; presented research at UCSB poster session and Research Symposium.

Lead Developer/Associated Student Body Commissioner

Lynbrook High School Mobile App

- Apr 2022 Aug 2023
- Lynbrook High School
- Took on the role of Lead Developer of Lynbrook High School's mobile app and integrated school, student organization, faculty, school board, and sports events onto the app.
- · Liaised between student body, faculty, school board, and development team; Surveyed for feedback and handled requests from all clients to keep app prevalent to the student body.

- · Led app development team of 5 developers and trained 3 underclassmen.
- App aids 40 school-wide events, assists 20+ clubs, and serves 1.9k students, teachers, and parents.

Program Mechanic

Lynbrook High School Teacher's Assistant

- **Aug** 2021 Jun 2022
- Lynbrook High School
- · Worked for English teacher and programmed scripts to help track student assignments.
- Created user-friendly website using FireBase working both frontend and backend to help teacher count student Google Doc comments, detect late work in Google Docs, and track Schoology discussion posts.
- Created online chat for classroom bonding using Firebase and worked WebDev and UI/UX design.

Projects

Gradient Boosting on Identifying Age-Related Conditions

- · Worked for the InVitro Cell Research Company and analyzed a dataset of over fifty anonymized health characteristics linked to three age-related conditions.
- Trained a ML model to predict patients' conditions given their health characteristics using Gradient Boosting (CatBoost, LightBoost, XGBM).
- Handled challenges of an unbalanced and limited dataset and referenced strategies from cuttingedge research papers and conferences.

ChicksOut Game App

- Developed an Android puzzle game in Android Studio Code similar to the "Lights Out" puzzle.
- · Programmed ChicksOut game and UI in Java, and coded a followup puzzle solver in C++.

Technical Skills

Languages, Frameworks, and Developer Tools

- Python, C++, Java, JavaScript, HTML/CSS
- Machine Learning, Deep Learning, Computer Vision, PyTorch, TensorFlow, ReactNative
- Docker, Git, GitHub Actions, Linux, LaTeX, Typst