Nora Chen

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EDUCATION

University of California San Diego — **La Jolla, California**
BS in Cognitive Science with Specialization in Language and Culture (3.6/4.0) — *Spring 2024*

College of Alameda — **San Francisco, California**
Associates of Arts in Arts and Humanities — *May 2021*
Awards: Dean's list, Cum Laude

EXPERIENCE

Customer Intelligence Analyst — **Las Vegas, Nevada**
Allegiant Air — *March 2025-Present*

- Preserved $5M+ annual revenue by architecting a predictive churn framework that replaced binary classification with a spectrum-based risk system, achieving 35.7% accuracy across 26M+ customers and enabling targeted retention of high-value segments through personalized booking window analysis and micro-seasonality detection.
- Designed comprehensive hotel booking survey through Conjointly platform to map customer journey friction points, quantifying intent gaps, pricing thresholds, and conversion barriers in the search-to-booking funnel to directly inform product optimization initiatives
- Conducted comprehensive price elasticity analysis across customer segments, quantifying behavioral responses to fare and ancillary pricing changes to optimize dynamic pricing strategies and inform targeted discount campaigns that maximize revenue per passenger
- Built automated IROP disruption tracking system integrating flight operations with customer records, establishing data-driven compensation frameworks and creating comprehensive datasets linking operational performance to customer lifetime value to enable proactive service recovery and churn prevention

Research Intern Cognitive Development and Learning Lab — **Berkeley, California**
University of California Berkeley — *June 2024-December 2024*

- Implemented a web-based experimental paradigm using HTML, CSS, and JavaScript to investigate exploration-exploitation decision-making through an observe-or-bet scenario. Built an interactive interface featuring dynamic stimuli presentation and automated data collection to study how children, adults, and computational agents balance information-gathering and reward-seeking behaviors. Analyzed participant response patterns to characterize developmental differences in decision-making strategies and reward optimization across age groups.
- Led participant recruitment initiatives and conducted developmental studies with children aged 3-8, managing both in-person and remote experimental sessions via Zoom. Successfully maintained high data quality standards while creating engaging, age-appropriate research environments that maximized participant engagement and retention rates. Coordinated with parents through consent processes and study procedures while adapting protocols to maintain experimental rigor.

Research Fellow Computational Cognitive Development Lab — **Cambridge, Massachusetts**
Harvard University — *June 2023-February 2024*

- Designed and led a study analyzing user behavior responses to visual recognition tasks across 200+ participants, utilizing incentive testing to understand perception and decision-making patterns. Developed metrics framework to measure how monetary rewards impact task engagement and performance accuracy
- Built full-stack experiment platform integrating JavaScript frontend with Python analytics backend to capture real-time user interactions with visual stimuli, implementing automated reward distribution systems and live data collection pipelines. Created interactive analytics dashboard revealing statistically significant patterns in cognitive performance under different incentive conditions, delivering actionable insights that drove 15% improvement in reward program effectiveness

Research Assistant Cognitive Tools Lab **San Diego, California**
University of California San Diego *August 2022-January 2024*

- Engineered data pipeline converting experimental datasets for web-based simulation platform, enabling scalable online behavioral testing and implementing automated R workflows for processing and visualizing large-scale human-AI performance comparison studies
- Applied advanced statistical modeling (Hierarchical Bayesian) to analyze user perception patterns, designing experiments and optimizing model parameters to understand how individuals process complex information and integrate new data with existing knowledge frameworks

Research Assistant Language, Interaction, & Cognition Lab **Merced, California**
University of California Merced *January 2022-August 2022*

- Developed end-to-end web application using HTML, CSS, JavaScript frontend with Python backend to conduct semantic word association studies, implementing interactive Odd-One-Out task interfaces, real-time data capture systems, and automated response processing pipelines for large-scale behavioral data collection
- Engineered Python-based statistical analysis pipeline to identify demographic patterns in user response data, building predictive models to quantify semantic association differences across user segments and delivering insights through data visualization and stakeholder presentations

Lab Assistant IDEA Lab **Merced, California**
University of California Merced *October 2021-May 2022*

- Built supervised machine learning classifier using Python to automate eye artifact detection in pediatric EEG data, developing feature extraction algorithms and training models to distinguish between blinks, saccades, and clean signals with 80% accuracy, replacing manual classification processes
- Engineered full-stack web application integrating trained ML models for real-time EEG artifact classification, creating intuitive user interface for researchers and deploying scalable solution that significantly reduced data preprocessing time for cognitive neuroscience studies

Personal Entrepreneurial Endeavors: **San Francisco, California**
Freelance *January 2019-Present*

- Strategically managed customer operations across four major e-commerce platforms (eBay, Mercari, Redbubble, Poshmark), analyzing sales trends and buyer behavior in Excel to drive 35% revenue growth. Maintained perfect 5-star rating across 150+ transactions through data-driven product recommendations and rapid issue resolution
- Built a tracking system using Excel to monitor customer satisfaction metrics and product performance, resulting in optimized pricing strategies and inventory management. Achieved 100% positive review rating through systematic analysis of customer feedback and proactive engagement

PROGRAMS

IDEAS (Intelligence, Data, Ethics, and Society) Summer Program **Boston, Massachusetts**
Fellow *July 2022*

- One of fourteen students selected from across the world to participate in a week-long intensive Seminar Program at Northeastern University. Learned from world experts in Data Science, Ethics, Computer Science, Philosophy, and Law. Topics include values in AI design, justice and fairness, privacy, interpretability and transparency, and broader personal and societal impacts.

Google Computer Science Summer Institute **Remote**
Student *July 2021-August 2021*

- Completed intensive four-week computer science program mentored by Google engineers, developing object-oriented programming skills and building server-side applications using JavaScript and p5.js framework with focus on scalable code architecture and performance optimization
- Built diverse portfolio of interactive applications including machine learning-powered object detection scanner using JavaScript and Teachable Machine API, real-time collaborative painting canvas with multi-user functionality, and complex game development projects demonstrating advanced programming concepts

Girls Who Code **Remote**
Computer Science Scholar *June 2020-May 2021*

- Participated in the Girls Who Code Virtual Summer Immersion Program, a two-week intensive experience focused on computer science and leadership. I designed and built a fully responsive, BuzzFeed-style quiz using HTML, CSS, and JavaScript, incorporating logic-based user input and dynamic styling to enhance user interaction across both mobile and desktop platforms. Through collaboration with peers and mentorship from industry professionals, I strengthened my front-end development, problem-solving, and project management skills.
- Led technical workshops and mentorship initiatives at high school Girls Who Code chapter, designing curriculum for programming fundamentals and facilitating career exploration sessions covering cybersecurity, software engineering, and AI, increasing club participation and community engagement

Kode With Klossy **San Francisco, California**
Computer Science Scholar *June 2018-June 2018*

- Completed a two-week Kode With Klossy Web Development Camp in San Francisco, where I used HTML, CSS, and JavaScript to design and build a website focused on connecting students with opportunities in Political Science. The project emphasized clean design, accessibility, and engaging content tailored for student users.
- Worked with a team to go through the complete product development process, including pitching ideas, wireframing, designing user interfaces, and presenting a functional app prototype during the program's final showcase. Gained hands-on experience in team-based development and user-centered design.

HACKATHONS

Treehacks **Stanford, California**
Participant *February 2023*

- Selected for YCombinator interview (<3% interview rate) after pitching LinguaLink a social impact startup concept connecting language learners with underserved communities. Led end-to-end prototype development, including user research, wireframing, and stakeholder presentations while managing a cross-functional team of developers and designers.

Hack Merced **Merced, California**
Participant *November 2022*

- Founded EcoChain, a decentralized application (dApp) leveraging blockchain technology to promote environmental sustainability through charitable giving. Designed and developed the platform's smart contract architecture to enable secure, transparent transactions, allowing users to purchase AI-generated images with cryptocurrency.
- Integrated NFT minting and automated donation routing, ensuring proceeds are directly sent to the user-selected sustainable charity. At HackMerced, my co-founder and I earned the 'Best Startup' award, along with an $800 Clerky startup package, which we used to incorporate EcoChain as a Delaware C Corporation.

VMWare Hackathon **Remote**
Participant *August 2021-August 2021*

- Developed full-stack mental health web application integrating GPT-3 API for dynamic question generation and implementing sentiment analysis algorithms to analyze user responses and provide real-time emotional state assessment and personalized feedback
- Built interactive 3D brain visualization using WebGL/Three.js to help users explore neurological connections between thoughts and emotions, creating immersive educational tools and digital check-in systems that enhanced user engagement and earned team MVP award for technical leadership

VOLUNTEER EXPERIENCE

Letters to Prescientist **Remote**
Volunteer *August 2023-Present*

- Mentor underserved middle school students as a STEM professional pen pal through Letters to a Pre-Scientist (LPS), inspiring scientific curiosity through personalized monthly correspondence. Connect classroom concepts to industry applications by sharing field experiences, demystifying STEM career pathways, and cultivating confidence in young learners from disadvantaged backgrounds.

Intergenerational Connections **San Francisco, California**
Volunteer *January 2022-Present*

- As a member of Intergenerational Connections, a non-profit student organization at UC San Diego, I help bridge the gap between generations by cultivating meaningful relationships between student volunteers and elderly residents of local senior living facilities. Weekly, I volunteer at a senior citizen living facility, engaging in activities such as conversing with the elderly, playing board games, and organizing events tailored to their interests.

Alameda Initiative **San Francisco, California**
Student Tutor *October 2018-May 2021*

- My job as a student tutor is to provide and facilitate individualized instruction for students with difficulties in their STEM classes. I provide them with strategies and tips that will allow them to be successful. I also create a positive learning environment that makes them feel comfortable and motivated in class.

PUBLICATIONS

The Role of Perception in Language Comprehension (Preprint), April 2022
Behind Clubhouse's Trajectory and Phenom (Preprint), May 2021

CONFERENCE PRESENTATIONS

N. Chen, E. Cain, and R. Ryskin. Meaning Representations Across Life Span. Poster presentation delivered at the 2022 UROC Annual Undergraduate Research Symposium, Merced, CA, August 2022.

N. Chen, D. Richardson, and E. Isbell. Identifying eye movements in pediatric electroencephalogram (EEG): A machine learning approach. Poster presentation delivered at the 2022 UC Merced Student Success Internship Program Symposium, Merced, CA, May 2022.

N. Chen, D. Richardson, and E. Isbell. Identifying eye movements in pediatric electroencephalogram (EEG): A machine learning approach. Cognitive Neuroscience Society. Poster presentation to be delivered at the Cognitive Neuroscience Society conference, San Francisco, CA, April 2022.

AWARDS

VMWare Hackathon 2021 Team MVP award. 2021

Walmart x Girls Who Code Scholarship. 2021

Hack Merced 2022 Best Startup. 2022

Summer Undergraduate Research Fellowship (SURF), funded by the Andrew W. Mellon Foundation Awarded:

$3,500. 2022

Naval Horizons Essay Contest ($200). 2023

SKILLS

Programming Languages: HTML/CSS, JavaScript, Python, R, SQL
Software & Platforms: Salesforce CRM, Tableau, Microsoft Office Suite (Excel, PowerPoint, Word), Figma, Conjointly, Qualtrics
Languages: Cantonese (Full Professional Proficiency), English (Native)
Additional Skills: Frontend Development, Survey Design, User Research, UX Design, Customer Journey Mapping, Data Visualization, A/B Testing