

# RACHEL JIARUI CHEN

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## EDUCATION

**Northeastern University**, Boston, MA May 2026  
B.S. Computer Science and Philosophy with Minor in Mathematics. GPA: 3.9/4.0  
**Related Coursework:** Natural Language Processing, Algorithms & Data Structures, Object-Oriented Design

## TECHNICAL SKILLS

**Languages** | Python, Java, C++, C, HTML, CSS, JavaScript, TypeScript, SQL, DrRacket, Assembly  
**Frameworks & Libraries** | React, Next.js, Node.js, Flask/Fast API, Express.js, Tailwind, GraphQL, PyTorch  
**Services & Tools** | Google Cloud Platform, Kubernetes, Unix/Linux, Git, Salesforce, JIRA, ELK Stack, LaTeX

## WORK EXPERIENCE

**Incoming Research Engineer | Plural Connections Group** Aug 2024 – Future

**Software Engineering Intern | UKG** May 2023 – Present

*Google Cloud Platform, Kubernetes, Python, GitLab, JIRA, ELK Stack, Grafana, InfluxDB, Cloud Observability*

- Resolving daily site monitoring alerts (3+), ranging from overloaded memory and disk usage to logging errors
- Designing code automations to handle repetitive logs to increase efficiency of troubleshooting turnaround

**Executive Vice President | TAMID** Feb 2023 – Present

*HTML/CSS/JS, React, Tailwind, RESTful APIs, GitHub Enterprise, Vercel, Management, Notion API*

- Led and managed a team of 4 developers on web app deliverable for Invictus, a cybersecurity start-up
- Launched new internal operations system to handle 194% increase in recruitment and financial data in a year and improve analytics visibility for long-term strategic planning using Notion API and external automation building
- Created full stack web development curriculum to prepare underclassmen team for full stack web development

**Undergraduate Research Assistant | Northeastern University** May 2023 – May 2024

*Python, ChatGPT API, Research & Development*

- Prototyped an environment for integrated human-AI optimized Python programming leveraging ChatGPT API
- Assessed synth viability and accuracy by developing 5+ code designs of varying complexities in environment
- Deployed prototype to 50 students in Fundamentals of Computer Science and surveyed their experience

**Software Engineering Intern | Ampion, PBC** May 2023 – Aug 2023

*Scrum/Agile, React, Materials-UI, Next.js, SQL, Salesforce, Git, Google Cloud Platform, GraphQL, JIRA, DatoCMS*

- Implemented wireframes of new modern website navigation bar and configured 8+ URLs based on SEO practices
- Presented data metrics report on the efficacy of third-party agencies, querying from Salesforce and GCP Analytics
- Streamlined CI/CD pipeline of evidence querying using DatoCMS API plugin to compute fields automatically

**Computer Science Research Candidate | MIT PRIMES** Jan 2021 – Jul 2022

*C, Assembly, RISC-V, VerifPal, LaTeX, Computer Security, Cryptography, Blockchain, Side-Channels*

- Invented stronger notion of digital ownership through establishing virtual objects on secure hardware (RISC-V)
- Identified security side-channels and specified 3 security mechanisms to patch vulnerabilities using VerifPal
- Co-authored on final 15-page research paper, presenting work at PRIMES Conference and MIT CSAIL Group

## PROJECTS

**EduFlex** Apr 2024 – Present

*HTML/JS/CSS, React, Fast API, NLTK, Gensim, Word2Vec, GloVe Python, OpenAI API*

- Achieved 1<sup>st</sup> place overall in 150-person Microsoft-sponsored hackathon after completing MVP, winning \$1000
- Built to empower and personalize public free online education to lower the barrier of entry for learners
- Used GloVe word-to-vector model to calculate word similarities between transcripts and learning objectives

**Financial News Sentiment Analyzer** Feb 2024 – Apr 2024

*Python, PyTorch, Keras, FinBERT, NLP, BeautifulSoup, Unit testing*

- Achieved 98% accuracy in classifying relevant news to provide actionable insights into stock market trends
- Implemented web-scraping tool to extract and process real-time financial news to improve sentiment analysis
- Fine-tuned machine learning model to improve sentiment analysis accuracy and filter out advertisement noise