

NICHOLAS TIETJE

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EDUCATION

Northeastern University

Master of Science in Computer Science

Boston, MA

Expected May 2026

Bachelor of Science in Computer Science and Chemical Engineering

Expected May 2025

- **Activities & Honors:** GPA 3.8/4.0, ChemE Car, CoMoChEng, AIChE, NUAGE, Dean's List, Dean's Scholar
- **Relevant Coursework:** Foundations of Software Engineering, Software Development, Mobile Application Development, Object Oriented Design, Algorithms & Data, Database Design, Fundamentals of Computer Science I & II

INTERNSHIP EXPERIENCE

Software Engineer Intern

Boston, MA

Northeastern University

Oct 2024 – Present

- Developed a GitHub-integrated educational platform to support automated grading, assignment management, and analytics
- Architected multi-tenant back-end in Go, creating RESTful endpoints for classroom creation and management workflows
- Engineered classroom creation workflow with role-based access control and secure, time-sensitive invite links, streamlining course setup and student onboarding

Software Engineer Intern

Boston, MA

State Street

Jul 2024 – Sept 2024

- Architected a scalable notification management system as a full-stack SaaS product for State Street, enhancing communication efficiency of 3000+ users across multiple departments
- Collaborated with cross-functional teams to gather requirements, ensuring alignment with diverse user needs and strict financial industry compliance standards

Inks and Coatings Engineering Intern

Boston, MA

Nano-C

Jul 2023 – Dec 2023

- Optimized techniques for surfactant-free Single Walled Carbon Nanotube inks, improving R/T performance by 11%
- Developed novel chemical separation and purification methods to drive product refinement

CAMPUS EXPERIENCE

Undergraduate Researcher

Boston, MA

Computational Modeling in Chemical Engineering at Northeastern University

Feb 2024 – Jul 2024

- Contributed to RMG-Py, an open-source computational modeling software, by developing features and code optimizations
- Led migration of output file format to YAML, improving cross-application interoperability
- Implemented efficient string and file handling techniques, achieving up to 50% reduction in execution time

Khoury Teaching Assistant

Boston, MA

Northeastern University

Jan 2024 – May 2024

- Mentored cohort of 250+ students in CS 3200 Database Design, providing technical support via Piazza and office hours
- Evaluated assignments, labs, and exams, offering constructive feedback to enhance student learning outcomes

FYELIC Teaching Assistant

Boston, MA

Northeastern University

Sep 2022 – May 2023

- Guided 200+ students in C++ programming and electrical prototyping for the Cornerstone of Engineering course

PROJECTS

LifeLinked: A MTG Life Tracking App

Kotlin, Compose Multiplatform, Gradle, Ktor, Koin, Android Studio, XCode, S3, Lambda, API Gateway

- Engineered and launched a cross-platform mobile app, attracting over 1000 active users across Google Play and App Store
- Leveraged Compose Multiplatform to share both native UI and back-end logic between iOS and Android platforms
- Adhered to Android/iOS design and quality standards by performing beta testing and applying clean architecture techniques

Huskerly: A Real-Time Messaging App (Back End) (Front End)

Python, Javascript, React, RESTful APIs, Microservices, Websockets, MySQL, Terraform, RDS, DynamoDB, S3

- Developed and deployed a feature-rich real-time messaging platform with organization management, channels, direct messaging, and OAuth 2.0 authentication to AWS

TECHNICAL SKILLS

Programming Languages:

Kotlin, Java, Go, Python, JavaScript, SQL, PostgreSQL, HTML, CSS

Tools/Frameworks:

Git, Github Actions, Docker, Kubernetes, Express, MongoDB, React, Gradle, REST APIs

Cloud Technologies:

AWS (RDS, S3, DynamoDB, Lambda, IAM, Cognito, API Gateway), Terraform