NICHOLAS TIETJE

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EDUCATION

Northeastern University — *Boston, MA*
Master of Science in Computer Science — *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*
State Street — *Jul 2024 – Present*

- Architected and implemented 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
- Managed and maintained advanced fabrication equipment including 3D printers, laser-cutters, and woodworking machinery

PROJECTS

LifeLinked: A MTG Life Tracking App   Github   ▷ Google Play   App Store
Kotlin, Compose Multiplatform, Gradle, Ktor, Koin, Android Studio, XCode, S3, Lambda, API Gateway

- Engineered and launched a cross-platform mobile app, attracting over 500 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   Github (Back End)   Github (Front End)
Python, Javascript, React, RESTful APIs, Websockets, MySQL, Terraform, Kubernetes, EKS, RDS, DynamoDB, S3

- Architected and developed a feature-rich real-time messaging platform with organization management, channels, direct messaging, and OAuth 2.0 authentication
- Designed and deployed a microservice-based cloud application with Kubernetes on AWS EKS to efficiently handle varying workloads and ensure high availability and reliability

TECHNICAL SKILLS

Programming Languages:	Kotlin, Java, Python, JavaScript, C++, SQL, PostgreSQL
Tools/Frameworks:	Git, Github Actions, Docker, Kubernetes, Express, MongoDB, React, Gradle, REST APIs
Cloud Technologies:	AWS (EC2, RDS, EKS, S3, DynamoDB, Lambda, IAM, Cognito, API Gateway), Terraform

INTERESTS

- Magic: The Gathering, Kotlin, Reading (Sci-fi & Fantasy), Board Games, Learning Spanish (650 day streak on Duolingo!)