NARON CHEN

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SKILLS

Languages	TypeScript, C#, C++, Python, Java, SQL, Go
Frameworks	.NET, Node, React, Git, Angular
Build & Packaging	CMake, npm, pnpm
DevOps & Cloud	Azure Pipelines, GitHub Actions, Docker
	AWS Certified Developer - Associate; certification link

WORK EXPERIENCE

Rotational Software Engineer - Bentley Systems — Philadelphia, Jan 2024 – Present

ITwin Microservices Team (Full Stack Web) — Jan 2025 – Present

– Built rate limiter in **.NET** using sliding window algorithm, handling 100+ API requests/sec
– Engineered a download manager in **Typescript**, unified download logic, with optional cache skipping
– Automated app insight deploy via **yaml pipeline**, slashing manual rollout steps by 15%
– Introduced action filters in **C#** for authentication & internal routing boosting controller throughput by 10%
– Refactored whole **Azure blob** interactions and retry mechanism, reducing 60% nested retries
– Designed a dynamic progress loader component in **React** with redux state machines for clean UI updates

Schema Management Team (Infra & Backend) — Aug 2024 – Jan 2025

– Coded a comprehensive ratio unit conversion framework in **C++** with bidirectional transformation pathways
– Enhanced the C++ ECSQL engine with support for IN-list expressions and inline table literals, integrating into the SQL-generation layer to emit valid SQLite statements and extending database's execution path to correctly handle arbitrarily complicated nested queries

OpenFlows WaterGEM Team (Full Stack Desktop) — Jan 2024 – Aug 2024

– Improved **50%** map tile rendering throughput by integrating the Bing Maps API and implementing a thread-pool based multi-threaded tile-fetch-and-draw **.NET** engine with dynamic window alignment
– Ensured file-loading pipeline backward compatibility to support 10+ legacy schema versions

Front-End Software Engineer - Superstars Inc — New York, Aug 2023 - Jan 2024

– Developed a dynamic profile page in Angular, attracting over 1000 users
– Improved UI rendering speed by 30% through various optimized components and caching

Algorithm Researcher - University of Richmond — Richmond, May 2021 - July 2021

– Established **C++** based testing platform for 100+ hospitals on liver allocation algorithm experiments
– Raised 50% system efficiency by developing a min-cost max-flow algorithm with C++

EDUCATION

University of Richmond, Richmond VA — May 2023

– Computer Science Major, Major GPA: 3.71
– Honors: Presidential Scholar, Dean's List, ACM vice president

University of Edinburgh, School of Informatics (study abroad) — Jan 2022 - May 2022

OTHER ACTIVITIES

Codepath Teaching Volunteer — Jan 2024 – Present
Helping first-generation and low-income students interested in tech | certifications link

Philly Codefest Hackathon 2025, 3rd place — April 2025
out of 80+ teams | SafeGlow: ML-powered A* route-planning app project link

Philly Codefest Hackathon 2024, 3rd place — April 2024
out of 60+ teams | TouchGrass: swiping group-event app with classification alg project link