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