

Tiger Schueler

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EDUCATION

University of Washington Tacoma

Tacoma, WA

Bachelor of Science in Computer Science & Systems, Minor in Mathematics GPA: 3.6

Aug. 2025

- CeDiploma: 25C9-NTAN-TNRJ

TECHNICAL SKILLS

Languages: Java, Python, TypeScript, SQL, R

Data Science: pandas, NumPy, NLTK, NetworkX, Matplotlib, scikit-learn, TensorFlow

Statistics & Analysis: Statistical modeling, Markov chain analysis, probabilistic modeling

Developer Tools: Git, WebStorm, IntelliJ, PyCharm, PostgreSQL, Microsoft SQL Server, Jupyter Notebooks

Frameworks & Libraries: React, Next.js, Express.js, HTML/CSS

Cloud & Services: Google Cloud Platform, Firebase, Google Cloud Storage, Cloud Pub/Sub, ffmpeg

Security Clearance: Secret clearance (current, eligible for reactivation)

PROJECTS

SHA3-SHAKE Cryptographic Library | *Java*

- Implemented SHA-3 hash functions and SHAKE algorithms from scratch following FIPS 202 specification with optimized Keccak-f[1600] permutation.
- Built comprehensive cryptographic toolkit with CLI interface supporting file hashing, MAC generation, and SHAKE-128 encryption/decryption.
- Developed robust testing suite with NIST test vectors, edge case validation, and performance benchmarking.

j- Compiler Extension | *Java*

- Extended Scanner to support multi-line comments, Java operators, reserved words, and numeric literals (double, float, long, hex, octal).
- Enhanced Parser with grammar rules and AST node support for Java constructs including conditional expressions, loops, and exception handling.

Markov Chain System Analysis | *Python, NumPy, PyAmaze*

- Implemented probabilistic models for analyzing system state transitions and computing steady-state distributions using power iteration algorithms.
- Developed performance optimization algorithms with matrix computations for large-scale system reliability analysis and convergence behavior.

Naive Bayes Sentiment Classification System | *Python, NLTK, pandas*

- Implemented complete NLP pipeline with NLTK tokenization, stopword removal, and Porter stemming for movie review sentiment analysis.
- Built statistical classifier using maximum likelihood estimation with Laplace smoothing and comprehensive error analysis framework.

EXPERIENCE

Lead Instructor

Mar. 2023 – May 2025

Mathnasium

Tacoma & Lakewood, WA

- Delivered personalized math instruction for K-12 students, improving comprehension and performance.
- Designed lesson plans targeting learning gaps and communicated progress to parents.

Airman

Dec. 2018 – Dec. 2022

United States Navy

Bremerton, WA

- Served aboard USS Nimitz during COVID-19 pandemic, maintaining mission readiness under high-pressure conditions.
- Ensured operational readiness of 50-caliber gun mounts with zero mission failures.
- Managed explosive material safety protocols, fostering precision, risk management, and teamwork.