Owen Schillaci

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EDUCATION

University of Michigan **Ann Arbor, MI**
Master of Science in Computer Science *Expected May 2028*
Coursework: Advanced Networks, Advanced Compilers

Texas A&M University **College Station, TX**
Bachelor of Science in Computer Science *May 2026*
GPA 3.81/4.00
Coursework: Machine Learning, Operating Systems, Computer Graphics, Statistical Computing, Software Engineering

SKILLS

Languages: Python, C++, C, JavaScript, Java, SQL, R
Frameworks: Flask, Django, React, Vue
Developer Tools: Linux, Slurm, Git, SQLite, PostgreSQL, MySQL, Docker

WORK EXPERIENCE

Texas A&M University - High Performance Research Computing **College Station, TX**
Software Developer *May 2025 - August 2026*

- Developed and maintained **Drona**, an Open OnDemand application used by Texas A&M University for creating, submitting, and monitoring scientific workflows on Slurm-based HPC systems, supporting 100+ monthly users and thousands of job submissions.
- Redesigned and engineered **HPCMosaic** (Python, React, Bash), the production Open OnDemand dashboard deployed across Texas A&M's Grace, FASTER, Launch, and ACES HPC clusters, integrating Slurm job monitoring, queue insights, resource usage, and cluster information into a unified interface.
- Engineered a backward-compatible migration system for Drona, automating configuration updates and filesystem migrations while migrating legacy job history to persistent database storage.
- Presented "Domain-Aware Workflow Monitoring in Open OnDemand" at the Global Open OnDemand (GOOD) conference, demonstrating integrated CPU/GPU monitoring, Slurm job controls, and domain-specific workflow progress in Drona.

Texas A&M University - Brain Networks Lab **College Station, TX**
Undergraduate Research Assistant *August 2024 - May 2026*

- Built a DQN-based sensorimotor agent and investigated how richness of motor primitives affects an agent's ability to achieve sensory invariance and generalize across environments.
- Designed and evaluated a temperature peak prediction model for Ondol-heated homes, achieving a 0.14°C MAE using cross-validated ridge regression and physics-informed feature engineering.

Texas A&M University **College Station, TX**
Peer Teacher *August 2023 - December 2024*

- Mentored 200+ freshmen in Python programming, debugging, and problem solving.
- Collaborated with faculty to identify student challenges and improve classroom instruction.

PROJECT EXPERIENCE

Teamup's App for Good - Theo Tutoring **College Station, TX**
Backend Developer *May 2025 - August 2025*

- Collaborated with a team of 12 students to build a full-stack tutoring platform over a 10-week program, mentored by professional software engineers.
- Designed RESTful API endpoints and database models using Django and PostgreSQL.
- Implemented features including user authentication, session scheduling, and role-based access for tutors and tutees.

Fast Food Point-of-Sale System - Texas A&M Project **College Station, TX**
Team Lead *August 2024 - December 2024*

- Led a team of five to engineer a fast food point-of-sale system with accurate order processing and sales tracking.
- Utilized Agile development methodologies, conducting regular sprints and team stand-ups for iterative improvements.
- Employed MySQL for data storage and retrieval, along with optimized database queries.
- Constructed a CSV-based simulation to model customer ordering behavior, generating \$1M in realistic sales data.