ORNIE PAYER

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Skills

- Python | Java | JavaScript | TypeScript | Node.js | React | Next | Vue | Redux | jQuery | Tailwind | Express | Django | Flask |
- SQL | MySQL | PostgreSQL | MongoDB | DynamoDB | CosmosDB | NGINX | REST API | CRUD | NumPy | TensorFlow | PyTorch |
- AWS | EC2 | Azure | GCE | Docker | Git | CI/CD | Cloud Computing | Unit Testing | OOP | Agile | Scrum | Kanban | Figma |

Experience

Head Undergraduate TA — UB Department of Computer Science — *Buffalo, NY, USA* — 08/2024 - Present

- Leading Computer Organization course as head teaching assistant for 250+ students, a team of teaching assistants, coordinating labs, recitations, office hours, creating and grading exams and streamlining faculty to teaching assistant to student communication.
- Delivering instruction on topics covering MIPS assembly, single/multi cycle datapaths, pipelining, cache, memory hierarchy, floating point, logic design, System Verilog, etc.
- Led office hours, lab sections, and recitation for 650+ students in the Introduction to Computer Science course delivering instruction on topics covering statements, functions, control flow, lists, strings, dictionaries, and file I/O; helped design and refine lab materials.
- Led office hours, and lab sections for 400+ students in the Computer Science 2 course on topics covering unit testing, classes and objects, linked lists, trees, stacks, queues, graphs, inheritance, and polymorphism; guided students through progressive coding tasks and preparing for tracing/coding quizzes.

Software Engineer Intern — Fresumes — *Buffalo, NY, USA* — 08/2024 - 12/2024

- Led development of an AI driven resume database featuring mass messaging automation and candidate sorting.
- Implemented full stack features with TypeScript, React Native, Node.js, and MongoDB; updated schemas and indexes to deliver sort by newest searches 40% faster.
- Added infinite scrolling and responsive layouts, boosting user session duration; containerized services with Docker and set up CI/CD pipelines, cutting environment issues 60%.
- Wrote feature documentation and coordinated with developers and PMs in weekly Agile sprints to meet release targets.

Undergraduate Researcher — UB Department of Computer Science — *Buffalo, NY, USA* — 08/2024 - 12/2024

- Built a cross platform Electron + TypeScript app that records and visualizes 32-channel EEG and audio to study speech intent.
- Converted Figma prototypes into responsive UI with Vite and Tailwind; integrated BrainFlow API and Chart.js for real time band power and spectrogram views.
- Collaborated data flow diagrams and developer docs; collaborating on an ONNX inference module that links brain wave patterns to speech with ~85% accuracy.
- Migrated data from MongoDB to PostgreSQL, redesigning schemas, indexes, and queries, resulting in a 40% improvement in search latency.
- Simplified system architecture from 5 repositories and 12 Docker containers to 1 repository and 4 containers, reducing CI/CD pipeline time by 60% and accelerating new developer onboarding by 50%.

Technical Intern — Back Market — *Brooklyn, NY, USA* — 07/2022 - 08/2022

- Automated battery health checks with Coconut Battery scripts and enforced Blancco data wipe workflows for 100% secure erasure.
- Ran hardware QA (ports, Wi-Fi, LCD, NVRAM) and mystery-order audits across smartphones, MacBooks, AirPods, consoles, and watches, reducing return rate.
- Built Salesforce / iAuditor dashboards that tracked refurbishment KPIs and streamlined quality control inspections.

Education

Bachelor of Science — University at Buffalo — *Buffalo, NY, USA* — 08/2022 - 12/2025

- Major in Computer Science

Projects

- **UB Commons:** Restaurant food web application for university at buffalo that allows users to search for restaurants and view their menus. Users can create an account, write reviews, rate restaurants, etc. (Javascript, Flask, Docker, MongoDB, REST API, CRUD, NGINX) **(12/2024)**
- **Vital Care:** Remote Patient Monitoring System Web App that allows patients to track their health data and share it with their healthcare providers (Javascript, Python, C++, Docker, Arduino) **(11/2024)**
- **Wayfarer:** Indie 2D platformer game with traversable terrain, unique gadgets, special collectibles, immersive story, distinct biomes etc. (Python, PyGame, Figma, Agile, Kanban, Scrum) **(05/2025)**