

MAX FU

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EDUCATION

University of California, Merced

Aug 2023 – May 2027

Bachelor of Science in Computer Science and Engineering

Merced, CA

Relevant Coursework: Discrete Mathematics, Multivariate Calculus, Linear Algebra, Linear Analysis, Probability & Statistics, Advanced Programming, Data Structures, Algorithm Design & Analysis, Computer Organization & Assembly

WORK EXPERIENCE

Software Engineer Intern

May 2025 – Aug 2025

Machyna, Inc.

San Diego, CA

- Reduced file upload and retrieval errors by **20%** by implementing a serverless file-management solution on **AWS**
- Decreased deployment time and downtime releases by **75%** through **CI/CD** automation using **Terraform (IaC)**
- Redesigned and implemented a responsive landing page using **Next.js**, **React**, **TypeScript**, and **Tailwind CSS**
- Software solution utilized **AWS** cloud services such as **AppSync**, **Lambda**, **S3**, **RDS**, **DynamoDB**, and **CloudWatch**

Undergraduate Teaching Assistant (EE021)

Aug 2024 – Dec 2024

Electrical Engineering Programming - Prof. Ayush Pandey

Merced, CA

- Facilitated lectures for **150** students by demonstrating Python and MIPS Assembly on open-circuit programming
- Lectured for **65** hours over **15+** weeks, addressed questions related to circuit design and programming
- Increased lab participation by **20%** through creating engaging and interactive coding exercises

Undergraduate Research Assistant

Oct 2023 – Oct 2024

LLM-based Autograder - Prof. Ayush Pandey

Merced, CA

- Implemented an autograder that increased average scores by **15%** by enhancing grading and feedback response
- Reduced compute within each epoch by **15%** through implementing the fine-tuning technique **LoRA**
- Improved autograder's efficiency by **50%** through model fine-tuning using a custom JSON data pipeline

PROJECTS

Obscuri (Productivity Tool) | Rust, TypeScript, Tailwind CSS, HTML, React, Tauri, PostgreSQL, Drizzle ORM

- Developed a **full-stack** desktop app providing an infrastructure to make queries without any noise or trace
- Launched on X and Reddit, attracting **500+** unique visitors within **24 hours** with **50** active paid users
- Implemented a paid subscription system with key technologies spanning, **Vercel**, **Supabase**, and the **Stripe SDK**

Machyna (Web App) | Next.js, React, TypeScript, Tailwind CSS, Figma

- Redesigned website using **Next.js**, **React**, **TypeScript**, and **Tailwind CSS**, establishing a stronger media presence
- Decreased bounce rate by **25%** and increasing engagement by improving UI/UX with a modern responsive layout
- Optimized performance and user experience, achieved **40%** faster load times using modular components and SSR

Bcon (Byte Conversion CLI Tool) | C, CMake

- Enhanced data interpretation efficiency by developing a **CLI tool**, enabling efficient data conversions
- Decrease processing time by **50%** compared to manual methods when handling large numerical conversions
- Reduced manual calculation errors by **90%** by implementing flag-based commands, facilitating efficient conversions

TECHNICAL SKILLS

Languages: TypeScript, JavaScript, C++, C, Python, HTML, CSS, Rust, Go, Java, SQL, MIPS Assembly

Frameworks: React, Next.js, Tauri, Express, Hono, Tailwind CSS

Cloud Services: AWS (AppSync, Lambda, S3, EC2, Aurora, RDS, VPC, IAM, DynamoDB, CloudWatch)

Machine Learning: PyTorch, TensorFlow, Pandas, NumPy, Matplotlib, Seaborn, scikit-learn, Hugging Face

Developer Tools: Git, GitHub, Gitea, Docker, Terragrunt, Terraform, Redis, TMUX, NGINX, AWS SDK, OpenAI SDK

Concepts: HTTP, TCP/IP, UDP, DNS, API Design, Caching, CDNs, Proxies, Load Balancing, Consistent Hashing, Replication, Sharding, Object Storage, Map Reduce