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, Multivariable 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 **React**, **Next.js**, **TypeScript**, and **Tailwind CSS**
- Constructed an **AWS** cloud solution utilizing services such as **AppSync**, **Lambda**, **S3**, **Aurora**, and **IoT Core**

Undergraduate Teaching Assistant (EE 021)   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, addressing 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*
- Developed an autograder that increased average scores by **15%** providing enhanced grading and feedback response
- Reduced compute within each epoch by **15%** by implementing LoRA, a parameter-efficient fine-tuning technique
- Improved autograder's efficiency by **50%** through model fine-tuning using a custom JSON data pipeline

ACM AI Lead   Dec 2023 – May 2024
Association of Computing Machinery   *Merced, CA*
- Organized and taught bi-weekly workshops to **50** active club members on **Deep Learning** and **Machine Learning**
- Hosted Deep Learning workshops on creating **MLP**, **Attention Heads**, and a simple **Language Model** from scratch

PROJECTS

Obscuri (Productivity Tool) | React, TypeScript, PostgreSQL, Rust, Tauri, Tailwind CSS, HTML, 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
- Decreased bounce rate by **25%** and increased engagement by improving UI/UX with a modern responsive layout
- Optimized performance and user experience, achieving **40%** faster load times using modular components and SSR
- Redesigned website using **Next.js**, **React**, **TypeScript**, and **Tailwind CSS**, establishing a stronger media presence

Bcon (Byte Conversion CLI Tool) | C, CMake
- Increased data interpretation by building a **CLI tool** for seamless conversion between hex, dec, and oct formats
- Decreased 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, Python, C++, C, HTML, CSS, Rust, Go, Java, GraphQL, SQL, NoSQL, MIPS Assembly
Frameworks: React, Next.js, Tauri, Express, Hono, Tailwind CSS
Cloud Services: AWS (AppSync, Lambda, S3, EC2, Aurora, RDS, VPC, IAM, DynamoDB, Iot Core, 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: Software Engineering, Object-Oriented Design, Databases, Agile, Full Stack, Open Source, Frontend, Backend, Web Development, Version Control, Unit Testing, Build Automation, SQL, NoSQL, HTTP, TCP/IP, UDP, REST API, Proxies