YONGKANG CHENG

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EDUCATION

University of Toronto (St. George Campus), Toronto, ON

Sep 2023 - May 2028 (expected)

Bachelor of Applied Science in Computer Engineering + PEY Co-op

GPA: 3.92/4.0 (Top 30 among first-year ECE students)

Relevant Courses: Applied Fundamentals of Deep Learning, Software Design and Communication

TECHNICAL SKILLS

- **Programming:** Python, C/C++, JavaScript/TypeScript, Bash
- Frameworks: PyTorch, FastAPI, React
- Tools: Linux, Docker, Kubernetes, Terraform, Helm, Git, Datadog, AWS
- Cloud and Infrastructure: AWS VPC, Nginx, SSH, CI/CD pipelines

EXPERIENCE

Infrastructure Intern, Handwritten Text Recognition

Jun 2024 - Aug 2024

- Deployed CRNN models on cloud infrastructure, leveraging Docker containers and Kubernetes orchestration.
- Reduced deployment times by 35% by optimizing CI/CD pipelines with GitLab.
- Improved monitoring and error detection by integrating Datadog and Opsgenie into workflows.

Infrastructure Engineer, WillPower Monitoring System

Jan 2025 - Present

- Built a modular infrastructure system using Docker, FastAPI, and Nginx for time management monitoring.
- Automated deployment of services using Terraform, cutting manual provisioning time by 50%.
- Currently exploring cost-saving measures in AWS through resource usage analysis.

Frontend Manager, Voluntrack.org (Non-Profit)

May 2024 - Present

- Coordinated a 4-person frontend team using React.js to renew the web interface.
- Enhanced API request handling and error monitoring, improving performance by 20%.

Self-Clone Chatbot with Diary Database

Oct 2024 - Present

- Built a self-hosted AI-powered chatbot that replicates personal interaction styles, deployed using React.js, FastAPI, and Nginx on a Raspberry Pi.
- Integrated OpenAI API and a NoSQL database for real-time Q&A functionality with personal diary data.
- Ensured secure and seamless remote access by implementing TLS encryption, DDNS, and optimizing for daily traffic from personal networks.

PROJECTS

Verilog Pac-Man Game (University of Toronto)

Nov 2024

- Created an FPGA-based Pac-Man game using Verilog, supporting VGA output and PS/2 input.
- Enhanced modularity in game design by automating Verilog module testing pipelines.

RainBirthdayGift - AI-Driven Chatbot

April 2024

- Built a lightweight chatbot using C#, .NET, and WPF with OpenAI API integration.
- Reduced API costs by implementing asynchronous calls and efficient logging.

AWARDS & ACCOMPLISHMENTS

ECE Awards & Dean's List Scholar (UofT)

Sep 2024

• Recognized for outstanding academic performance (GPA 3.92/4.0).

American Computer Science League (ACSL) - Bronze Prize

Jan 2021

• Placed in top 10% overall, with top-20% scores in the 4th round, after 60 hours of training.