Guanchao Huang (Samuel)

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OBJECTIVE

Develop software product that empowers people. Proven tech expertise and collaborative development skills demonstrated in 5+ high-impact projects, with a track record of quickly adapting to new domains and technologies.

EDUCATION

UNIVERSITY OF NOTRE DAME (ND) Notre Dame, IN
Master of Science in Computer Science and Engineering | GPA 3.722/4.000 Aug. 2023 – May 2025

SOUTHERN UNIV. OF SCI. & TECH. (SUSTECH) Shenzhen, Guangdong, China
Bachelor of Engineering in Microelectronics Science and Engineering | GPA 3.69/4.00 Sep. 2019 – Jun. 2023

EXPERIENCE

KINGA SAFETY South Bend, IN
Software Engineer July 2024 –

- Conducted code reviews for existing codebase, leading to the decision to replace the developer; sourced and interviewed new developers, and provided technical insights for the team.
- Re-developing Kinga with React Native. Kinga is a personal safety app with features like decoy call and emergency texts. Also served as Project Manager. (Ongoing)

ENFOCUS South Bend, IN
Summer Intern – Tech Consulting, Data Science May 2024 – July 2024

- Contributed to the **Connected Vehicle Pilot Program** of **THOR INDUSTRIES** as a primary project.
- Analyzed user data, including GPS travel information, demographics, treatment impact, and survey results, using data science libraries such as Pandas, Matplotlib, providing insights to protocol design.
- Developed a real-time dashboard to monitor user trips, program progress, and treatment effects using PowerBI, ArcGIS, and Azure.

BLEWBO Shenzhen & Dongguan, Guangdong, China
Market Research Engineer – Business Development June 2023 – September 2023

- Pioneered Blewbo's business expansion into the Chinese market as the **first employee**, directly handling all aspects of business development and setting the foundation for the company's operations in the region.
- Facilitated business communication during the executive's travel in China, acting as an interpreter and ensuring smooth business operations through cultural and strategic insights.
- Managed product supplier sourcing by identifying and finalizing business agreements with 4 factories.
- Directed the hiring process for the China launch, translating job descriptions, screening applicants, and orchestrating interviews, successfully hiring a Product Photographer and an HR Specialist.

COOPERATIVE COMPUTING LAB, ND Notre Dame, IN
Visiting Student Researcher – Software Engineering May 2022 – Jul 2022

- Collaborated with CCL research team, enhancing the open-source HPC computing toolkit using C and Python. Utilized Git and GitHub for version control, and Linux Shell script to streamline workflow.
- Developed a transaction log visualization tool with Python that diagnosed performance bottlenecks in the distributed computing system, which became an integral tool for subsequent research projects.
- Implemented a mechanism to reduce the number of distributed workers without compromising task progress, resolving a long-standing functional request from 2016 and optimizing the system's flexibility and efficiency.

ENTREPRENEURSHIP

- **Software Engineer** at **TALENTOS UNIDOS**: Building a web app with a WhatsApp chatbot to collect job seeker info and a frontend for HR to filter the candidates. Used Twilio, Node.js, MongoDB, React.
- **Co-Founder** of **MEDOUO**, a company selling original artworks and handcrafted items.
    - Served as Project Manager on the founding team, advancing business development using project management tools and methodologies.
    - Managed digital marketing, customer support, and e-commerce platform development.
- **IT Advisor** at **ECOGRAINS ENERGY:** Recommended website-building solutions and managed IT tools, including Google Workspace and Notion, to enhance team productivity. Managed social media presence.

ACADEMIC & PERSONAL PROJECTS

- **Hexagram:** A React-based web tool for exploring and interpreting the 64 Chinese hexagrams. (August 2024).
- **Wildlife Monitoring with Raspberry Pi:** Led a 2-student team to build a system using motion sensor and webcam to detect animals, send push notifications to iPhone, and store images on Google Drive (May 2024).
- **Compiler for B-Minor:** A compiler for B-Minor 2023, a C-like language that includes expressions, basic control flow, recursive functions, and strict type checking, crafted in C for Intel x86 platform. (December 2023)
- **UniTuring:** A Python-based UTM emulator capable of reading and executing computations on provided Turing machine tapes, complemented by a text interface that showcases the execution progression. (April 2022)
- **ARMv3 Processor with Multiplier**: A processor written in Verilog, compatible with several basic ARMv3 arithmetic instructions and multi-cycle multiplication, simulated and tested in Vivado. (October 2021)
- **Image Steganography + Hamming Codec**: Led a 2-student team in developing a Python tool for data embedding within images with Hamming encoding/decoding and LSB manipulation. (May 2021)
- **Matrix Library and Strassen Algorithm**: Led a 4-student team in developing a custom Python matrix library, incorporating basic operations and the Strassen multiplication algorithm. (December 2020)

LEADERSHIP & SERVICE

UNIVERSITY OF NOTRE DAME (ND)   Notre Dame, IN
Ambassador Program Coordinator | Dept. Representative | Webmaster   2023 – 2024

- **Graduating Recruiting Assistant:** Initiated the Ambassador Program in the College of Engineering, collaborating with admission office to establish a trained ambassador team.
- **Dept. Representative in Grad. Student Gov.**: Represented CSE Dept. in GSG meetings.
- **Webmaster of Notre Dame Chorale**: Built and managed a website for Chorale using Conductor.

SOUTHERN UNIV. OF SCI. AND TECH. (SUSTECH)   Shenzhen, Guangdong, China
Founder & Moderator | Peer-mentor | Student President | Office Student Assistant   2020 – 2023

- **Founder and Moderator of Python User Group:** Improved technical skills and problem-solving abilities for 350+ members. Additional workshops are currently being planned.
- **Peer Mentor of Zhiren College**: Mentored 40 first-year undergraduate students.
- **Student President of School of Microelectronics**: Organized events, assisted administration.
- **Member of Feng Hua Emcee Team:** Emceed/provided voice-overs for 15+ campus events.

SKILLS AND AWARDS

Certificates: Earned 40+ online course certificates; Google Project Management Professional Certificate; Deep Learning Specialization Certificate from DeepLearning.AI.

Technical Skills: Python (4 yrs); C (3 yrs); Java (2 yrs); Linux and Git (4 yrs); Node.js and React (1 yr)

Hobbies: Singing (Tenor 1 in Notre Dame Chorale); Classical Music; Philosophy; Psychology; Productivity