MARK NGUYEN

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EDUCATION

Illinois Institute of Technology — **Chicago, IL**
Bachelor's Degree, Computer Science, ILSPRA Undergraduate Research Scholarship Recipient — *Aug 2022 - Jun 2026*

Bartlett High School — **Bartlett, IL**
Science, Engineering, and Technology MAGNET Academy - Weighted GPA 4.50/5.00 — *Aug 2018 - May 2022*

WORK EXPERIENCE

Argonne National Laboratory — **Lemont, IL**
Software Engineer Intern — *May 2023 - Aug 2023*

- Enhanced back-end algorithms for streamflow forecasting for the US Department of Energy EVS Division
- Hyperparameter-tuned LSTM Neural Network models by currently 163% through cross-validation and grid search
- Utilized PyTorch and TensorFlow for deep learning, analyzing big, hourly geospatial and historical streamflow data

NASA L'SPACE — **Tempe, AZ**
New Technology Project Developer — *Jan 2023 - Apr 2023*

- Developed and submitted an innovative 8-page space technology proposal and a New Technology Report (NTR)
- Created and managed KPP, Gantt charts, Risk Matrix, and Quad Charts for project tracking and risk assessment
- Engaged with Subject Matter Experts (SMEs) including NASA HRP Chief Scientist, Professors, and Engineer

Potbelly Sandwich Shops — **South Barrington, IL**
Shift Leader — *Jun 2020 - Aug 2021*

- Managed all operations to ensure food and kitchen safety while simultaneously serving customers' orders
- Operated the POS system to make quick transactions and ensure timely delivery daily to over 200 customers
- Encouraged an excellent environment for coworkers by planning social events and rewards for excellent service

VOLUNTEERING

IIT Association for Computing Machinery (ACM) — **Chicago, IL**
Event Coordinator — *Sep 2022 - Present*

- Coordinated the largest computing club in the university by engaging in diverse students' personal projects
- Led and created a weekly Python Crash Course for 50+ local students from the South Side Chicago neighborhoods
- Organized my university's annual MLH sponsored Hackathons via Slack, Discord, Notion, Microsoft 365, and Jira

PERSONAL PROJECTS

Automated Medical Yeoman

- Research project funded by NASA of $10,000 to implement UWMS health diagnosis systems for current spacecraft
- Utilized Java, SQL, JDBC to build a health database system for storing, querying, and analyzing patient data
- Received 1st Place NASA L'SPACE Proposal Spring 2023 from NASA Marshall Space Center Chief Technologist

3-D Printed Refreshable Braille Display

- An individual research project funded by the National Science Foundation of $2100 to develop frugal braille display
- Utilized C/C++, Fortran, and MATLAB to optimize braille refresh rate through matrix operations, graph theory, HCI
- Received 1st Place Computing Award ILSAMP 2023 and created a Braille Cell that is ≈630% cheaper than market

Real-Time Particle Tracing Wind Tunnel

- A highschool, hands-on project to construct an industry-grade wind tunnel mentored by Collins Aerospace engineers
- Utilized ANSYS/Autodesk CFD to enable real-time visual/digital particle tracing and automate dynamic drag data
- Welded and woodworked essential components in a makerspace using Six Sigma principles / Engineering notebook

SKILLS

Languages: Java, Python, JavaScript, OCaml, Matlab, HTML, C, CSS, Dart, Kotlin
Frameworks: Express.js, AngularJS, Node.js, React.js, Bootstrap, Flask
Technologies: MongoDB, Amazon Web Services (AWS), Firebase, Heroku, Docker, Git, Github
Awards & Honors: 1st Place Computing Award ILSAMP 2023, 1st Place NASA L'SPACE Proposal Spring 2023, Fall 2022 IIT's Dean's List, 2022 VEX Robotics Illinois State Qualifier, 2022 Illinois State Scholar, 2020 VEX Regional Competition Excellence
Engineering Frameworks: Siemens NX (Certified), Autodesk Inventor, Creo, OpenRocket, Autodesk CFD, Fusion 360