Nhut Nguyen, Ph.D.

Senior Software Engineer & High-Performance Computing

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WORK EXPERIENCE

DEC 2022 – NOV 2025 (3 YRS)

Alipes ApS (Denmark)
Research Infrastructure Engineer

- Designed and implemented data pipelines and research infrastructure for large-scale trading datasets, enabling reliable backtesting of ML-driven prediction models.
- Ensured high-performance model execution in production using modern C++ and Python on CPUs and GPUs (CUDA), targeting microsecond-level latency where needed.
- Collaborated daily with quants and data scientists to turn research code into robust, tested services, improving model accuracy and performance through engineering best practices.
- Built and maintained internal Python/C++ libraries and tools to streamline research workflows, CI/CD, and experiment reproducibility.
- Practiced AI-assisted development (Copilot, ChatGPT, Claude) for code generation, refactoring, test creation, and documentation, helping the team adopt AI-augmented workflows.
- Used Docker, GitLab CI, and monitoring tools to deploy and maintain services in a cloud-like environment.

DEC 2021 – NOV 2022 (1 YR)

CLAAS E-Systems Denmark
C++ Software Developer

- Built C/C++ software modules for sensor-driven embedded systems in agricultural machinery, working with real-world telemetry and performance-critical constraints.

AUG 2018 – SEP 2021 (3 YRS 1 MO)

Synopsys Denmark ApS
Senior R&D Engineer

- Developed scientific software for computer-aided microchip design, focusing on numerical optimisation and robustness of timing engines (improved robustness to 95% and performance by 2x).
- Worked in cross-functional teams of engineers and domain experts to deliver scalable, maintainable C++ solutions with strong testing and code review culture.

FEB 2016 – JULY 2018 (2 YRS 6 MOS)

Teklatech A/S (Denmark)
Software Development Engineer

- Modelled complex power delivery networks and implemented algorithms for analysing large-scale circuits, combining mathematical modelling with efficient C++ implementations.

AUG 2012 – DEC 2015 (3 YRS 5 MOS)

Technical University of Denmark
Employed Ph.D. Student

- Provided an explicit construction for asymptotically Error-Correcting Codes using the theory of Drinfeld modular curves in Algebraic Geometry and Number Theory.

SOFTWARE DEVELOPMENT SKILLS

ARCHITECTS & BEST PRACTICES	Software Architecture Object-Oriented Design Test-Driven Development Multithreaded Programming CI/CD, code review documentation
LANGUAGES	C++23, Python
AI-AUGMENTED DEVELOPMENT	GitHub Copilot, Claude ChatGPT, Gemini
TOOLING	VS Code, Rider Git, GitHub, GitLab Linux, Docker, CMake Slack/Teams, Jenkins/TeamCity

EDUCATION

2012 – 2015	**Ph.D. in Math & Computer Science** *Technical University of Denmark*
2005 – 2009	**M.Sc. in Algebra & Number Theory** *Vietnam National University HCM*
2000 – 2004	**B.Sc. in Math & Computer Science** *Vietnam National University HCM*

INTERESTS

WRITING	Books, Blogs, Social Posts
SPORTS	Football, Badminton, Swimming

LANGUAGES

ENGLISH	Fluent
DANISH	Limited working proficiency
VIETNAMESE	Native