Thomas Delev

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Education

University of Ottawa Ottawa
Bachelor of Applied Science in Computer Engineering *2019 – 2023*

- Graduated Summa Cum Laude
- Dean's list 2020-2021-2022-2023
- GPA: 9.63/10

University of Ottawa Ottawa
Bachelor's Degree in Science with Specialization in Physics *2015 – 2019*

- Graduated Summa Cum Laude
- Dean's list 2016-2017-2018-2019
- GPA: 9.63/10

Cégep de l'Outaouais Gatineau
College degree in Natural Sciences *2013 – 2015*

Collège Saint-Alexandre de la Gatineau Gatineau
High School Diploma *2008 – 2013*

Experience

System Design Engineer II 2022 – Present
AMD Xilinx *Ottawa, full-time*

- Developed software and scripts for FPGA and SOC components, implementing RTL designs for testing various interfaces including Ethernet and integrated bit error rate tests (IBERT) on Versal devices to support 800 Gbps Ethernet capabilities. Enhanced system performance through rigorous testing and optimization.
- Engineered and released a Verilog-based IP core to implement the 1-Wire protocol in programmable logic devices, including the development and upstreaming of a corresponding Linux driver, significantly improving integration capabilities for client applications.
- Served as the Technical Marketing Owner for various IPs including USB, SPI, UART, and CAN, managing all aspects of product support and planning. Defined product requirements and ensured alignment with customer needs, driving adoption and satisfaction in the market.
- Actively collaborated with cross-functional engineering teams to align software design with project requirements, enhancing the efficiency and reliability of digital control systems.
- Presented a technical presentation on the new Processing System for the AMD Versal Series Gen 2 family to customers, effectively communicating advanced technical concepts and product capabilities.
- Managed a booth at ECOC to showcase the 800 GE DCMAC capability, demonstrating product functionality and engaging with industry professionals to gather feedback and drive interest.
- Manned a booth to present the Kria KD240 motor control starter kit to AMD field staff, highlighting its features and benefits while collecting valuable insights for product improvement.
- Oversaw the technical marketing ownership of the Kria SOM portfolio, collaborating with partners to enhance support, drive field adoption, and define future product requirements, ensuring the portfolio meets evolving market demands.
- Created a demo for the cost-optimized portfolio showcasing the new MicroBlaze RISC-V soft-processor, integrating HDL components with a standalone application coded in C to demonstrate real-world application versatility and performance.

Information Technology Programmer 2019 – 2021

ESDC - Employment and Social Development Canada *Gatineau, part-time/full-time*

- Program online questionnaires and automate processes using CSS, JavaScript, HTML, and XML, ensuring compliance with design specifications and functionality requirements.
- Conduct code reviews to maintain high-quality standards and improve existing code before production deployment.
- Automate data extraction and reporting in Excel using VBA, streamlining the processing of survey data and improving data accuracy.

Information Technology Business Analyst 2010 – 2022

Microrama Informatique *Gatineau, part-time/full-time*

- Implementing Microsoft SharePoint and Office 365 solutions, developing custom functionalities with Power Apps to enhance user experience and operational efficiency.
- Created and maintained company website using WordPress, ensuring optimal performance and user engagement.
- Provided remote troubleshooting and support for hardware and software issues, guiding clients in service selection and system setup.

IT Technician 2016 – 2017

University of Ottawa *Ottawa, part-time/full-time*

- Prepared and configured computer systems for deployment in teaching laboratories, ensuring compliance with faculty specifications.
- Developed a custom Ubuntu image for efficient multi-computer deployment across the Faculty of Science.
- Provided software and hardware support, including networking technologies, enhancing operational efficiency and system reliability.

Research

Research Student in Medical Physics 2018 – 2021

with Adjunct Research Professor Dr. Elsayed Ali *The Ottawa Hospital Cancer Center, Ottawa*

- Developed and trained an Atlas-based segmentation algorithm to automate bowel bag contouring, leveraging programming skills in MATLAB to enhance workflow efficiency.
- Conducted evaluation and numerical analysis of new guidelines for region delineation on CT images, applying rigorous methodologies in software development for medical imaging applications.
- Implemented algorithms in MATLAB to quantify observer variability in contouring, enhancing accuracy and reliability in medical image analysis.
- Delivered technical presentations at conferences, including:
  - Kelowna 2019 - Canadian Organization of Medical Physicists Annual Scientific Meeting.
  - McGill University 2019 - Canadian Physics Student Conference.
- Recipient of the Harold Johns Studentship, recognizing excellence in research contributions.

Neurophysics research student 2017

with Professor Dr. André Longtin *University of Ottawa, Ottawa*

- Studied and modeled neurophysics behaviors of weakly electric fish, utilizing computational techniques to analyze complex biological signals.
- Developed models in COMSOL and conducted signal analysis in MATLAB, demonstrating proficiency in numerical methods and algorithm implementation.
- Awarded the NSERC Undergraduate Student Research Award.

Teaching Assistant

CEG2536 - Computer Architecture I Fall 2021

University of Ottawa, Ottawa

- Conducting laboratory sessions for a class of 80 students. Assisting the teacher in the correction of laboratory reports and exams.

Volunteer

Volunteer 2017 – 2019

Maison Mathieu-Froment Savoie Palliative Care Center, Gatineau

- Assisting nurses in the various physical care of terminally ill patients. Preparing healthy meals for the patients.

Volunteer in a humanitarian program Summer 2014

Canada World Youth, Indonesia

- Raising awareness of health and hygiene. Upgrading of sports facilities in a community. Community and river cleaning.

Skills

Programming Languages: Python, C, C++, Java, JavaScript, HTML/CSS
Hardware Description Languages: VHDL, Verilog
Languages: French oral and writing (advanced), English oral and writing (advanced)
Tools and Software: Vivado, Vitis, AWS, Git, Quartus, Latex, MS Office (Excel, Word, PowerPoint), Maple, Matlab, Android Studio
OS: Windows, Linux, Mac OS, Android