

Kenneth Thomas Dandrow

Software Engineer | Full Stack Developer | Embedded Systems

Bethlehem, NY | (845) 729-9929 | KtotheTD@yahoo.com

Portfolio: www.KennethDandrow.com

LinkedIn: [linkedin.com/in/kenneth-dandrow](https://www.linkedin.com/in/kenneth-dandrow)

Github: <https://github.com/ktdshock>

PROFESSIONAL PROFILE

Software Engineer with hands-on experience in full-stack development, machine learning, embedded systems, and hardware-software integration. Recently earned a Bachelor of Science in Software Engineering with honors and built multiple real-world projects involving AI, REST APIs, computer vision, and embedded platforms.

EDUCATION

Southern New Hampshire University, Manchester, N.H.

October 2023 to March 2026

Bachelor of Science in Computer Science: Specialization: Software Engineering

– GPA 3.75 | Presidents List (6x) | Honor Roll (16x)

CORE COMPETENCIES

Languages: Python | Java | JavaScript | C++ | C# | SQL | Bash | HTML/CSS | Bash

Frameworks & Technologies: Node.js | Express.js | Angular | Spring Boot | REST APIs | Docker | Git | Firebase

Databases: MongoDB | MySQL | SQLite

AI/Data: LLM's | Machine Learning | Neural Networks | OpenCV | Keras | Prompt Engineering

Embedded & Hardware: Arduino | STM32 | ESP32 | Raspberry Pi | IoT Systems

Tools: Linux | Jira | Figma | Postman | Github

SOFTWARE ENGINEERING PROJECTS

- **Deep Q-Learning Autonomous Agent**
 - Developed a reinforcement learning agent using Python and Keras capable of autonomously navigating an 8x8 environment
 - Implemented neural network training, reward optimization, and pathfinding logic to improve navigation efficiency
 - Tuned model behavior and training parameters to improve convergence and decision-making accuracy
Python • Keras • Machine Learning
- **TravlR Getaways Full-Stack Web Application**
 - Built a full-stack travel booking platform with dynamic client-server architecture and RESTful API integration
 - Developed authentication workflows, database connectivity, and responsive front-end functionality
 - Designed and managed MongoDB collections for dynamic travel data management
MongoDB • Express.js • Angular • Node.js
- **OpenCV Object & Color Detection System**
 - Developed a real-time computer vision system capable of detecting colors and objects from live video streams
 - Implemented contour detection, image processing, and object tracking algorithms using OpenCV
 - Improved recognition accuracy through frame analysis and threshold optimization
Python • OpenCV • Computer Vision

- **Embedded Systems & IoT Projects (Raspberry Pi / ESP32)**
 - Designed and developed embedded systems projects involving LoRa communication, sensor integration, and LED state machines
 - Integrated Raspberry Pi, ESP32, STM32, and Arduino platforms for hardware-software interaction and wireless communication
 - Built IoT prototypes involving real-time device communication and microcontroller-based automation
Raspberry Pi • ESP32 • Arduino • STM32 • IoT

PROFESSIONAL EXPERIENCE

- Computer Repair Technician** March 2011 to Present
Self-Employed Carmel & Delmar, NY
- Diagnosed and repaired over 1,000 desktops, laptops, and mobile devices, addressing both software and hardware issues.
 - Performed advanced electronic repairs, including soldering, part replacements, and logic board diagnostics.
 - Removed viruses, malware, and ransomware using manual disinfection and security tools.
 - Provided personalized technical support, boosting client satisfaction, and retention.
 - Collaborated with other technicians to optimize workflow and client repair turnaround.
- Caregiver** May 2009 to March 2019
Full-Time Carmel NY
- Provided comprehensive in-home care for a family member with dementia, overseeing medication, hygiene, and mobility.
 - Managed medical appointments and coordinated care plans with healthcare providers.
 - Developed multitasking, problem-solving, and emotional resilience in high-responsibility settings.
 - Handled critical care equipment and monitored vital signs with precision.
 - Maintained daily records and handled administrative tasks for insurance and care tracking.
- CNC Machine Technician** March 2011 to August 2014
Fryer Machine Systems Patterson, NY
- Built and assembled CNC vertical machining centers (MC-30 model) from base machine shells to fully operational systems for enterprise-level clients.
 - Fabricated and installed precision mechanical and electrical components, maintaining strict tolerances and engineering specifications.
 - Performed system integration, calibration, and multi-stage testing to ensure machine accuracy, reliability, and performance.
 - Conducted machine programming, diagnostics, and troubleshooting to identify and resolve technical issues.
 - Delivered completed systems to high-profile clients including Martin Guitar, United Launch Alliance (ULA), and Savage Arms.
 - Maintained strong attention to detail and quality control in a high-precision manufacturing environment.
- Firedog Technician & Product Specialist** April 2006 to July 2010
Circuit City Cortlandt Manor NY
- Promoted to Firedog Technician from sales due to strong technical performance.
 - Repaired and upgraded desktop and laptop systems, installed operating systems, and transferred client data.
 - Assisted with warranty sales and technical consultations, improving department revenue.
 - Contributed to the store's top three tri-state ranking in PC sales and service performance.
 - Provided end-to-end technical solutions for both retail and support walk-ins.

HONORS & AWARDS

- Certificate of Merit, New York State Assembly - Recognition for academic excellence and placement on the Southern New Hampshire University President's List