Derek Kunkel

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Education

University of Saskatchewan   2018 − 2023
Bachelor of Science in Computer Science   *Saskatoon, Saskatchewan*

University of Saskatchewan   2010 − 2011, 2014 − 2017
Bachelor of Science in Physiology and Pharmacology   *Saskatoon, Saskatchewan*

Northern Alberta Institute of Technology   2011 − 2013
Instrumentation Engineering Technology   *Edmonton, Alberta*

Relevant Coursework

- Software Engineering
- Machines and Algorithms
- Deep Learning
- Algorithms in Bioinformatics
- GUI Implementation
- HCI
- Programming Language Paradigms
- Full Stack Web Programming
- Object-Oriented Systems

Technical Skills

Languages: Python, JavaScript, HTML/CSS, Java, Scala, SQL, R
Developer Tools: Git, Docker, VS Code, JetBrains IDEs , Figma
Technologies/Frameworks: Linux/WSL, GitHub, Node, React, Material-UI, Microsoft Office Suite

Projects

Motel Management App | *Docker, JavaScript, React, Node, Express, MySQL, Auth0*
- Developed a full-stack web application to allow user account creation with varying levels of access according to account type, room reservation both online as a customer and from the front desk as an employee, and employee shift scheduling
- Employed a Scrum development methodology, asynchronously tracking all epics, stories, tasks, and bugs in Jira, as well as observing thrice-weekly stand up meetings

Sorghum Crop Image Classifier | *Python, Keras/TensorFlow*
- Developed a LeNet deep learning model for classifying images of sorghum plants trained on the Sorghum-100 dataset, serving as a baseline of performance for comparison with more sophisticated CNNs
- Completed a detailed analysis of the dataset, devised and ran experiments to demonstrate model accuracy with and without data augmentation, and authored a technical paper on the experiment's results

Version Controlled Songwriting App UI | *Figma*
- Designed a low-fidelity prototype of a UI for a version controlled songwriter's assistant, followed by a heuristic evaluation to find usability problems in our design and inform future UI iterations
- Used Figma to create a medium-fidelity prototype of the design, followed by user evaluation questionnaires and interviews to establish further improvements and direction to the UI design

Experience

Northwest School Division   Summer 2010, 2012–13, and 2015–18
Summer Technology Technician   *Meadow Lake, Saskatchewan*
- Answered user calls and emails concerning technology service and inquiries.
- Created service and maintenance tickets with relevant information in an online database
- Inventoried and inspected network equipment, computers, and computer accessories throughout the school division
- Installed and performed troubleshooting of educational and enterprise hardware/software
- Installed and repaired network infrastructure
- Worked as part of a team to accomplish tasks quickly and efficiently

Northwest School Division   February 2014–August 2014
IT Technician   *Meadow Lake, Saskatchewan*
- Performed remote troubleshooting and diagnosis of laptop, desktop, server, network, and software issues
- Repaired/updated laptop, desktop, server, and network hardware at the board level
- Lead a team of summer students in the installation and inventory of technology assets
- Contributed articles and how-to documents to the organization's IT knowledge base

Meadow Lake Mechanical Pulp   September 2013–February 2014
Instrumentation Engineer   *Meadow Lake, Saskatchewan*
- Installed, calibrated, diagnosed, and repaired industrial transmitters and sensors
- Utilized SAP software to manage tickets involving equipment requiring repair/replacement