Conrad Heidebrecht
Candidate for Bachelor of Applied Science in Systems Design Engineering

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Skills Summary

- **Self-directed learner:** The majority of my technical skills are self taught through online courses, tutorials, personal projects, and API guides.
- **An agile team player:** At Espial I was an active member of my Scrum team, in addition to experience acting as team lead and/or coordinator in hackathons.
- **Skilled Communicator:** At the University of Waterloo Computer Museum I was concise and informative through providing daily summaries to my supervisors.
- **Backend Developer:** I have worked on commercial applications utilizing AWS to serve RESTful APIs, and many personal projects involving both Node and Python.
- **Mobile Developer:** I enjoy crossplatform development with Flutter and am published on Google Play.
- **Experience with both RBDMS and NOSQL schemas:** Demonstrated through my work with the University of Waterloo Computer Museum, Espial Group, as well as my own personal mobile apps.

Relevant Experience

Espial Group Inc.   Ottawa, ON
Server-side Cloud Developer   *Jan. 2018 - Apr. 2018*

- **Amazon Web Services**: I helped build several APIs utilizing services including Lambda, API Gateway, S3, ECS, ELB, and RDS. In the process, I became familiar with AWS management tools, and a frequent user of the python and node.js SDKs.
- **Infrastructure as Code**: I helped design, implement, test and release a standalone REST API from the ground up with Cloudformation and Boto3. I also helped migrate on-premise infrastructure to AWS with Terraform and Docker.
- **Automated Testing**: I added features to the company's (Qunit based) test runner, as well as pioneered the utilization of Mocha/Chai within the company.
- **Continuous Integration**: I helped add new builds to Jenkins, wrote new tasks in Gradle, and helped migrate the company's code hosting and VCS from Bitbucket to Gitlab, retrofitting Jenkins builds to be run with Gitlab CI.

University of Waterloo   Waterloo, ON
Computer Museum Technician   *Oct. 2016 - Sept. 2017*

- **Collective Access**: Collective Access is an open source software for managing and publishing museum and archival collections.
- **Server Administration**: I set up multiple Ubuntu web servers for both testing and production purposes as well as developed several custom scripts to streamline project installation and backup, data import and export, and project configuration.

Education

University of Waterloo   Waterloo, ON
Candidate for Bachelor of Applied Science   *Sept. 2017 - present*

Rockway Mennonite Collegiate   Kitchener, ON
Ontario Secondary School Diploma   *Jun. 2017*

Machine Learning Course   Coursera.org
Stanford University   *Jun. - Sept. 2016*

Awards

- Governor General's Award for Top Academic Achievement in Graduating Class   *Jun. 2017*
- Academic Excellence in: Mathematics and Science   *Jun. 2017*
- Placed 3rd in JAMHacks (SJAM Secondary School)   *Apr. 2017*

Programming Skills & Technical Interests

- **Languages**: Python, Javascript/Node, Dart, Kotlin, C++, Java, HTML/CSS, Octave, Groovy
- **Technologies**: Linux, Git, AWS, Terraform, Cloudformation, Docker, Vue, Pixi.js, Mocha/Chai, Tensorflow, Gitlab CI, Jenkins

- **Hackathons**: I was a proud participant of JAMHacks and Hack the North.
- **Machine Learning**: I regularly spend my free time learning about artificial intelligence through medium such as videos, research papers, tutorials and podcasts.
- **Writing FOSS**: Nearly all my personal projects are open source, including several libraries I've written.
- **Hardware**: I enjoy building things such as custom quadcopters, custom PCs, and things with Arduino.

Highlighted Projects

- **WAToPlan**: A crossplatform mobile app built with Flutter, it is a flexible tool meant to help students manage their time and is currently in open beta on Google Play.
- **fullcolor**: A PyPi package that enables easy 24bit color utilization in the terminal.
- **Population Flappy**: A Flappy Bird-like simulation which a genetic algorithm learns, in real time, to master.
- **Limen**: A utility for saving and reading valuable information using AES encryption.
- **DefenceMatrix**: A security solution for Linux servers including automatic firewall setup, password complexity checking, rootkit detection and attack visualization.
- **Synkronized Coding**: A script that enables multiple coders to work on the same file at the same time, in real time.

Interests & Activities

- **Linux**: I mainly use debian based distros and my home is the command line. I even compile custom kernels when needed.
- **Cross-cultural experiences**: Have lived in three countries and have traveled to Europe and South America.
- **Personal fitness**: I enjoy recreational sports and am a regular at the gym.
- **Music**: I have played the alto saxophone in six different bands throughout my time in secondary school.