Conan K Woods

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WORK EXPERIENCE

Microcline Projects   **Jul 2019 – Present**
Founder & Software Developer   *Vancouver, BC*

- Created the web based lab LIMS/QMS software [Labosaurus](#).
    - Utilized AWS infrastructure for database and web server management.
    - Integrated the payment processing software Stripe and Avatax to calculate international tax rates.
- Wrote several free web applications such as a [chromatogram viewer](#) and a [sequence alignment tool](#).
- Participated in contract work writing software to analyze and align Oxford Nanopore HIV sequence data, providing automated drug resistance interpretations. https://recall.hcvdb.ubc.ca

British Columbia Centre for Excellence in HIV/AIDS   **Mar 2005 – June 2019**
Programmer / Data Manager   *Vancouver, BC*

- Developed an internal web-based quality management system to assist in maintaining lab accreditation.
- Developed the software RECall to increase the speed and accuracy of chromatogram data & sequence analysis.
- Developed various software and tools for use in the lab with Ruby, JavaScript, Python, C++.
- Developed & maintained databases using Oracle, SQLite, SQL.
- Set up and maintained several Linux servers.
- Fulfilled data requests for researchers, putting together datasets for their analysis.

In-Touch Software Corporation   **Feb 2004 – Jan 2005**
Software Developer   *Vancouver, BC*

- Web Application Development with PHP, JavaScript and Ruby.

Credit Union Central of British Columbia   **Sep 2003 – Jan 2004**
Contract programmer   *Vancouver, BC*

- Worked on the web banking applications using Java, JavaScript and Ruby.

University of Northern British Columbia   **Sep 2002 – Dec 2002**
Research Assistant   *Prince George, BC*

- Designed and coded a system to detect deadlocks in distributed and parallel applications that use the MPI messaging interface.
- Installed Linux systems for use in a research lab.

EDUCATION

The University of Northern British Columbia   **May 2003**
BSc in Computer Science   *Prince George, BC*

PUBLICATIONS

- Woods CK, Brumme CJ, Liu TF, Chui CK, Chu AL, Wynhoven B, Hall TA, Trevino C, Shafer RW, Harrigan PR. [Automating HIV drug resistance genotyping with RECall, a freely accessible sequence analysis tool.](#) *J Clin Microbiol.* 2012 Jun;50(6):1936-42. doi: 10.1128/JCM.06689-11. Epub 2012 Mar 7. PMID: 22403431; PMCID: PMC3372133.
- See portfolio at https://woodsc.ca for full list.

SKILLS & INTERESTS

- **Skills:** Ruby; JavaScript; Python; Database design; SQL; Oracle; SQLite; Web application development (front & back-end); Reactive UI frameworks; Vue; Bioinformatics; Sequence alignment & manipulation; Data processing; AWS experience (S3, RDS, Elastic Beanstalk); Linux
- **Interests:** Tabletop role-playing games; Comic Books; Goldfish; Computer Games