Vancouver BC, Canada

Elias Carter

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Employment

Senior Software Engineer — **3v Geomatics** — **August 2018 – Current**

- Sped up data delivery pipeline by 10x and improved data compression by 20%.
- Reduce micro-service code size by 40% after simplifying hybrid Postgres/DynamoDB data model.
- Improved HPC data pipeline observability by migrating from file based logging to GrayLog.
- Implemented event driven system to selectively notify engineering team of data processing failures.
- Designed AWS data pipeline: S3, ECS, DynamoDB, RDS, Gitlab CI/CD, security scanning.
- Implemented static and dynamic security scanning of application code, containers, and libraries.
- Responsible for company software engineering practices. Run training workshops and presentations.
- Lead Software Engineering team and mentor junior engineers.

Software Engineer — **Electronic Arts** — **September 2017 – July 2018**

- Engineer and maintain 24x7 automation systems containing hundreds of VMs and consoles.
- Develop for multiple platforms/tool chains (xbox, playstation, windows, osx, linux, android, ios).
- Automate hardware farm self healing actions to boost reliability to over 99%.

QA Tools Developer — **Kardium** — **May – December 2016**

- Reduced engineering change overhead of clinical designs by 60% via process automation.
- Developed safety critical quality management and regulatory systems which were formally tested and verified to meet ISO 13485 clinical requirements.

Researcher/ Software Developer — **Syncrude Research** — **January – August 2015**

- Researched/Developed patented technology: https://patents.google.com/patent/CA2932064A1/en
- Engineered hard real time embedded system to simultaneously process and collect data from 50+ sensors in order to signal downstream industrial equipment.

Software Developer — **Ballistic Echo Inc** — **May – August 2014**

- Integrated SQL, .NET, and EXCEL to create an automated database reporting tool.
- Utilized WinForms and WPF (MVVM) frameworks to create dynamic GUIs.

Interests

- Linux systems programming and OS primitives (namespaces, cgroups, threads, shared memory, networking).
- Data intensive applications (data locality, problem decomposition, hardware acceleration).
- Network security, application security, and security tenable to users.
- Aiding the human aspect of development: ergonomic tools, standards, static analysis.

Extras

- **Vancouver Linux Users Group (https://vanlug.bc.ca)** - Executive Secretary
- **GitHub** - https://github.com/edcarter
- **Website (in-progress)** - https://eliascarter.ca

Education

Edmonton, AB — **University of Alberta** — **Fall 2012 – April 2017**

- BSc in Computer Engineering co-op, with distinction, April 2017. GPA: 3.8