

Kevin Chan
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Education

University of British Columbia Vancouver, BC
H.B.Sc. Microbiology, Immunology & Computer Science Sep. 2015 - Apr. 2019 (expected)
– Relevant courses: Microbial Ecophysiology, Molecular Virology, Immunology, Software Engineering and Construction, Intermediate Algorithmic Analysis and Data Structures, Introductory Relational Databases, Introductory Computer Systems
– Dean's Honour List 2015, 2016 (Science Scholar), 2017

Experience

The Parfrey Lab, UBC Vancouver, BC
Summer Studentship May 2018 - Current
– Developing a pipeline for genome assembly from metagenomic data.
– Gained experience with use of bioinformatic tools, including: data preprocessing, assembly programs, binning programs, functional and taxonomic classification, and quality control.

The Parfrey Lab, UBC Vancouver, BC
Work Learn Student Apr. 2017 - Apr. 2018
– Assisted lab members with computational analysis of gene, species expression, and metagenomic data.
– Developed scripts to automate and improve aspects genomic data analysis protocols.
– Tested and troubleshooted analysis pipelines in collaboration with other lab members.
– Contributed to technical logistics including creation and maintenance of the lab website using Wordpress, and managing the lab GitHub repository (see [here](#)).
– Wrote workflows for lab members regarding site administration and processing of gene count data.

The Palen Lab, SFU Burnaby, BC
Undergraduate Research Assistant Apr. 2016 - Aug. 2016
– Developed a dataset for count data of frog species over 7 defined habitats by manual data extraction and entry from 83 peer-reviewed articles.
– Created novel programs/scripts to enhance efficiency of information extraction and input.
– Conducted literature searches for relevant articles.

The Cory Lab, SFU Burnaby, BC
Undergraduate Research Volunteer Apr. 2016 - Aug. 2016
– Worked with insects (cabbage loopers, *Trichoplusia ni*) and transferred between habitats according to life stage.
– Prepared and distributed diet for insects according to protocol.
– Worked with minimal supervision after gaining proficiency in tasks.
– Gained experience working with large scale experiments and laboratory equipment.

Terry Fox Secondary Basketball Port Coquitlam, BC
Scheduler/Manager Sept. 2011- 2015
– Implemented, organized, and managed student work schedules.
– Collaborated with the Athletic Director for requests or changes in scheduling.
– Communicated frequently with peers and referees during live games.
– Kept track of player statistics during live games.

Volunteer

The C.O.D.E. Initiative

Volunteer

Vancouver, BC

Jun. 2018 - Current

- Teaching children with autism spectrum order one-on-one basic coding concepts using the visual programming language Scratch.

The University Of British Columbia

Orientation Leader

Vancouver, BC

Mar. 2016 - Apr. 2017

- Assisted incoming first year students in transitioning to university courses, schedules, and campus life.
- Provided on campus resources to students including health and wellness.
- Attended workshops and received training in leadership, inclusion, and mental health.

Operation Med School

Director of Finance

Vancouver, BC

Nov. 2014 - Apr. 2015

- Managed all conference finances by maintaining a budget of \$5000, handling all transactions, and overseeing financial accounts.
- Managed conference sponsors, wrote and designed fundraising proposals.

The City of Port Coquitlam

Children Services Volunteer

Port Coquitlam, BC

Sep. 2014 - 2015

- Actively engaged children ages 5-9 in summer camp activities.
- Aided in daily schedule planning during summer outings.
- Assisted children ages 5-9 develop skills in basketball through drills and games.
- Consistently worked in group environments.

UBC Neuro-Immunology Lab

Student Intern

Vancouver, BC

Mar. 2014 - Apr. 2014

- Prepared samples using micropipettes, centrifuges, and pipette guns.
- Received, aliquoted and stored patient serum samples and requisitions.
- Learned and performed lymphocyte separation.
- Learned about Acetylcholine Receptor Antibody Assays and ELISA.
- Recorded daily fridge and freezer temperatures to ensure stability.

BCSPCA

Morning Communal Attendant

Port Coquitlam, BC

Sep. 2013 - 2015

- Cleaning skills: operating laundry machine, dishwasher, floor mopping, cage cleaning.
- Interacted and took care of animals, read behaviour and acted according to their needs.
- Supported staff with general customer service.

Publications

Dan A. Greenberg, Wendy J. Palen, **Kevin C. Chan**, W. Jetz, and Arne Ø. Mooers. Evolutionarily distinct amphibians are disproportionately lost from human-modified ecosystems. *In review*.

School Projects

InsightUBC Web App

Introductory Software Engineering course capstone project, CPSC 310

- **Tools:** Typescript, Javascript, Restify, Mocha, Chai, Karma, WebStorm 2017.3.3
- Followed a scrum-based methodology and pair-programming over 5 sprints to create a full stack web application to query historical UBC course data.
- Parsed JSON and HTML to extract course and room location data.
- Implemented a query language to retrieve query results in JSON, and implemented a frontend UI for the user workflow.

- Wrote unit, integration, and user acceptance tests to validate user workflows in addition to using automated test suites.
- Gained experience in following RESTful designs when implementing endpoints.

Flights ‘R’ Us Web App

Introductory Relational Databases course term project, CPSC 304

- **Tools:** Javascript, SQL, Vue, Nuxt, Sequelize, PostgreSQL, WebStorm 2017.3.3
- Worked with 3 other team members to design and implement a full stack flight booking web application.
- Designed, refined and normalized E/R diagrams and database schemas for conceptual modeling.
- Created and implemented SQL queries for customers to search over date/price ranges, seat classes, flight numbers, airlines, and departures/destinations.
- Implemented additional SQL queries for customers to book flight seats and view reservations.
- Created a frontend UI for customer booking workflows, and a separate UI for staff to oversee customer bookings.

Buses ‘R’ Us Mobile Android App

Software Construction course term project, CPSC 210

- **Tools:** Java, junit, VirtualBox, Genymotion, IntelliJ 2017.1.5
- Implemented frontend functionality to display bus stops, schedules, and colour coded routes across the lower mainland, and provided a demo for user workflows.
- Implemented the backend model, providers and parsers in Java according to a provided UML diagram.
- Queried and integrated live transit data in JSON format from the TransLink API.
- Used the junit framework for backend testing and visual user acceptance tests for the UI.
- Gained experience in adherence to project specifications, and following basic OOD principles.

Awards

NSERC Undergraduate Student Research Award (\$4500)	2018
J Fred Muir Memorial Scholarship in Science (\$500)	2017
Chancellor’s Scholar Award	2015
Tri-City R.E.A.C.H Award for Exceptional Youth	2015
Grade 12 Top Academic Student Award	2015
CHHMA Scholarship Program (\$1000)	2015
B.C. Government Scholarship (\$1000)	2015
Trail’s End Scholarship Program (\$661.85)	2015

Skills

Languages (Proficient): Python, JavaScript, Java, SQL

Languages (Basic): C++, C, R

Operating Systems: MacOS X, Linux, Windows

Applications: Wordpress, MS Office, L^AT_EX

Frameworks: Node, Yarn, Vue.js, Sequelize.js, PostgreSQL

Lab skills: Distillation, Liquid-liquid Extraction, Recrystallization, Thin Layer Chromatography, Titration, Measuring Melting Points

Miscellaneous: Conversational Cantonese.