BINF sights.

ISSUE12
2021-T3-W6

A Game of Life

How citizen science and the gaming community are bringing manpower to bioinformatics analysis

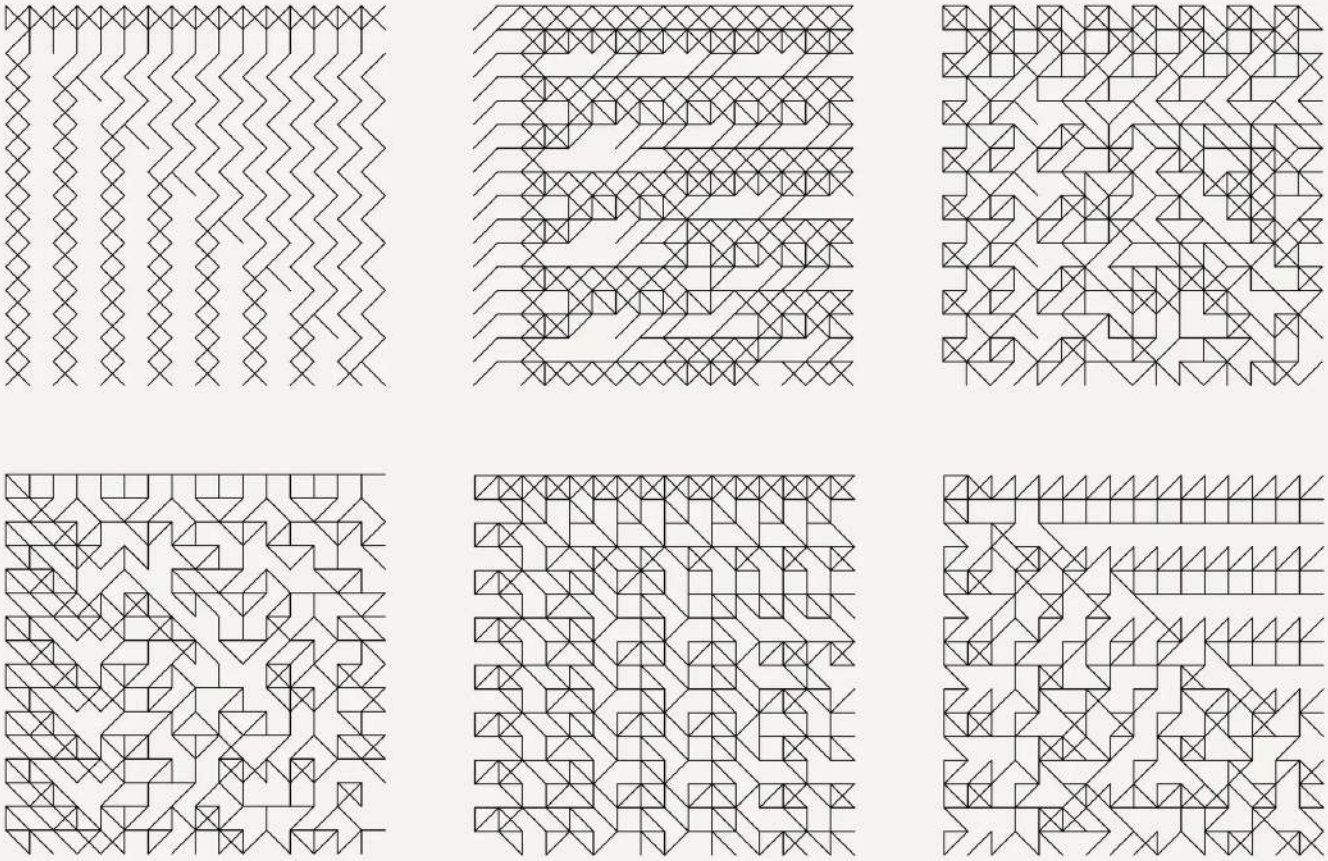

IMAGE SOURCE:
"The Game of Life - Emergence in Generative Art" exhibition
Kjetil Golid of Norway

SOCIETY NEWS
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DISCORD
BINFSOC CHARITY FUNDRAISER
BINF2010 REVISION SESSION
HACKATHON TIPS
GARVAN INSTITUTE SCHOLARSHIP

COFFEE+CODONS ISSUE 01
BINFSOC GITHUB

FEATURED ARTICLE: CITIZEN SCIENCE

CONTACT

Society News

BINFSOC

AGM.

We're pleased to invite you to the 2021 Annual General Meeting for BINFSOC. During the AGM, we will be opening nominations and performing the elections of the 2022 BINFSOC executive team. All members of BINFSOC on SpArc are eligible to attend the AGM to vote and/or nominate themselves for a position.

You can find the details of each executive role in the BINFSOC constitution here:
https://unswbinfsoc.com/constitution

You can nominate yourself for a position here:
https://unswbinfsoc.com/nominate

All nominees will be allowed 3 mins and 30 seconds to present a short speech outlining their vision, experience and interest in their chosen role/s in the society. If you wish to nominate yourself for a position but are unable to attend the AGM, please email exec@unswbinfsoc.com with a video recording of your speech. For nominees who apply for 2 positions, this speech must address both roles and will be presented once.

Date: Friday 22nd October 2021
Time: 10:00 am - 11:30 am (AEDT)
Location (Online):
https://unswbinfsoc.com/agm

Agenda
- Opening of Meeting
- President's Report
- Treasurer's Report
- Election of Executive Positions:
  -- President
  -- Vice President
  -- General Secretary
  -- Treasurer
  -- Events Executive
  -- Human Resources Executive
  -- Marketing Executive
  -- Publications & IT Executive
  -- Sponsorships Executive

Charity Fundraiser.

Join us in fundraising to raise awareness for medical research! As a society, our goal is to walk a total of 500km during this week. Each team will compete to accumulate the most steps and receive all the funds raised for their chosen charity.

Here are the teams and their chosen charities:
HR: Australian Cancer Research Foundation
EXECs: Children's Cancer Institute
Digital Branding: Alzheimer's Association
Events: ChildFund Australia

Click here to show your support: https://gofund.me/76f228e4
Many thanks to all our supporters!

BINF2010 Revision.

We're just reminding any BINF2010 students this term that Cam (Digital Branding Exec) will be providing an optional lab time (2 - 4 PM) this Thursday for help with the scripting assignment. Come along and bring your assignment questions.

Garvan Institute

Summer Scholarship.

Garvan Institute
of Medical Research

Full time

PRF6150

Sydney

Genomic Summer Research Scholarships - Kinghorn Centre for Clinical Genomics (KCCG)

SUMMER SCHOLARSHIPS ARE NOW open at the Garvan Institute of Medical Research for undergraduates studying computer science, biology, bioinformatics, maths, stats or engineering. Projects range from low-level embedded systems through to genome interpretation.

Garvan Institute of Medical Research

a: 384 Victoria Street, Darlinghurst NSW 2010
p: +61 2 9355 5754| m: +61 426 060 972

APPLY > https://unswbinfsoc.com/kccg

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People think that mathematics is complicated. Mathematics is the simple bit, it’s the stuff we CAN understand. It’s cats that are complicated.

— John Horton Conway

Hackathon Tips.

Hackathons are an exciting way to learn and apply your technical, creative and business acumen, in a time-pressured environment. Through working collaboratively with your team, you have the opportunity to ideate past the confines of your university coursework, and solve a real-world problem.

Whilst there may be many competing factors that can make a Hackathon seem daunting - particularly for first time participants, the spirit of the competition encourages everyone to put themselves out there, try new things and face any challenges that arise, head on.

To help prepare you for the event, and give you the confidence to achieve your best, below are some tips that will guide you through important aspects of the Hackathon experience!

1. Teamwork

In order for you to ideate and develop an effective solution to the given problem statement, you will need to work efficiently and collaboratively with your team members. Groups that operate harmoniously can achieve more in the given time frame, and produce a higher quality end product. To ensure that your team demonstrates this, you need to establish strong communication. Create an environment where everyone is able to ask questions, and propose new ideas - regardless of how simple they may be. Before you begin solving the problem, it is recommended that you determine your main channels of communication and collaboration (e.g. Slack, Google Docs, GitHub etc.), and discuss each other's strengths and weaknesses.

Once this has been discussed and the problem statement revealed, your team can begin brainstorming solutions. During this process, record every idea that is proposed, before narrowing down to a single idea. From there, you can break the idea into smaller pieces, and set achievable goals, which can be allocated to each team member, depending on their aforementioned strengths.

Through clear communication and an open and supportive environment, you will be able to unleash your team's full potential.

2. Time management

One of the greatest challenges that you will face during a Hackathon is the time pressure. Solving a problem in a short time frame accelerates the intensity of the event, but also motivates you to work harder and smarter.

To do this, before or at the beginning of the event, create a timeline for key milestones. For example, spend:

- 1 hr brainstorming
- 30 mins choosing the idea after the

brainstorming session

- 15 mins allocating tasks and setting goals for the working time
- 1 hour preparing the slides and practising the pitch and demonstration

3. Asking for help

Throughout the Hackathon, you will be given a mentoring session with an industry expert. This time is invaluable to seek advice on your solution, discuss your ideas and receive help. To effectively utilise this time, ensure that you come to these sessions prepared with questions for your mentor. Topics that you can discuss include:

- Fleshing out your ideas and proposed solution. Explain your thinking process to them.

- Ask them about how to improve your implementation or if you are debugging code, ask them to review it to help solve your issue. You cannot however ask your mentors to code any part of your solution.

- Discuss the business component of your solution with your mentor, be sure to consider financial feasibility and scalability.

As you explain your solution to your mentor, this is also a chance to practise an “elevator” style pitch, which will help grow your confidence for the final pitching round.

4. Taking effective breaks

Whilst you do have limited time throughout the Hackathon, it is equally as important to take a step back from your computer, and give yourself a break. A lunch break has been allocated during the competition, but feel free to take micro-breaks at different points outside of this time to rejuvenate, clear your thoughts and get your muscles moving. By taking these healthy breaks, you will work more effectively and produce a better solution.

5. Pitching to your full potential

Pitching and presenting are key skills that are integral in a Hackathon. Not only is it the main medium to sell and convince the judges of the value of your product, but it provides you the opportunity to demonstrate your holistic and analytical understanding of all aspects of the problem statement and your solution, from the technical to business potential. Whilst at least one member of each team is required to attend the provided pitching workshop, here is a guide on the expected protocol for an ONLINE pitch.

- Have your cameras on throughout the duration of the whole pitch.
- Wear engineering business casual attire.
- Sit in a room with enough privacy to avoid distractions and unnecessary noises in the background.
- Use headphones with a microphone to ensure the judges hear your voice clearly without any echo or feedback from your PC.
- Look into your camera rather than your screen to help establish eye contact and engage with your judges.
- Choose one person to be in charge of changing the slides, and complete at least one practise pitch amongst yourselves to ensure there is a smooth transition between both speakers and slides.

Technical Preparation

The Hackathon is designed to enable students of all levels of technical proficiency to participate. Whilst you will not receive the problem statement till the day of, you can still take small steps to prepare yourself, and your team.

First, brush up on the language that you are most familiar with, and review past projects (whether they be previous assignments or side-projects) that you have created. You can also practise small coding questions on Hackerrank or Leetcode, to prepare your coding skills.

Research tutorials on sites like YouTube or Kaggle, that step through producing a technical product. Some useful topics to look into may be:
- Bioinformatics tools and pipelines
- Application development
- Design thinking guided development
- Databases

Remember, this Hackathon is flexible, and proof-of-concept products are valid solutions to the problem. Prioritise a good idea, before an overly-complex technical solution that will not be achievable in the given time frame.

> BINFSOC

Coffee + Codons

ACGT

[NEW PUBLICATION]
available @

https://github.com/BINFSOC/Coffee-and-Codons-01

citizen science in bioinformatics

A HIDDEN ADVANTAGE BROUGHT TO SOME OF BIOLOGY'S HARDEST PROBLEMS -- AND HOW THE GAMING COMMUNITY IS HELPING

Writer *Anthony Nguyen* ***Editor*** *Cam McMenamie*

Contact us

IF YOU HAVE ANY COMMENTS or feedback regarding BINFsights, please write to us at binfsights@unswbinfsoc.com

We also encourage anyone to share with us anything you'd like us to take a look at, be it a bioinformatics tool that you have made or find useful; or news in the bioinformatics world that you'd like to see written about in future issues.

TO VIEW PAST AND PRESENT issues of BINFsights, check out our website at unswbinfsoc.com/binfsights

Stay tuned on our Facebook page for updates regarding events and society news.

-- The BINFSOC Team

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